

Control Data Center Physical Assets

Handle Them Well To Avoid Critical Problems

by Christian Perry
• • •
SHOW US A DATA CENTER, and we'll show you a steadily increasing influx of data. That influx creates an avalanche effect that forces managers to introduce more powerful equipment into their spaces to address the data. In turn, concerns over physical assets become paramount, particularly when enterprises discover their existing architectures can't accommodate newer, faster, and more power-hungry technologies. These concerns grew to a fever pitch this year, and the prospect of relief doesn't appear on the horizon for next year. Now is the time for managers to obtain more control over their data center's physical assets, and it starts with mindset and evaluation.

Discovery Detail

According to Steve Yellen, vice president of product and market strategy at

Aperture (www.aperture.com), enterprises should view their data centers as a single entity rather than as an assortment of equipment. "Once managers take a holistic approach to viewing the data center, they need to obtain precise metrics on physical infrastructure resources. This will give them access to a clear and representative model of the data center, which allows them to see the relationship of space, power, and cooling," Yellen says.

There are two basic approaches to obtaining insight on existing physical assets: automated discovery and manual discovery. Andrew Hillier, CTO and co-founder of CiRBA (www.cirba.com), says that automated discovery is useful for finding hardware elements connected to networks and servers and can also prove handy

Go to Page 10



Build A Usable Security Plan

Ensure Your SME Is Ready For The Unpredictable

by Joe Rudich
• • •
INFORMATION SECURITY TEAMS understandably invest a great deal of their resources in preventive activities, such as firewalls and antivirus software. They also implement intrusion detection systems, log monitoring, and other tools for the detection and diagnosis of security compromises. These are good

priorities—as the saying goes, an ounce of prevention is worth a pound of cure. While there is nothing wrong with information security departments that like to use an ounce—or even a pound—of prevention, what if they don't have an ounce of cure? "Companies often have the mentality that if something does happen, they'll be able to deal with it," says George McBride,

director of IT risk consulting with Aon Consulting Worldwide (www.aon.com) in Chicago. "But in the event of a real crisis, people won't know what to do."

No amount of protective controls can absolutely guarantee an enterprise will be spared intrusion. All enterprises need to have a response in place and hope it is rarely needed. Curative capabilities can take many forms, including forensic and cleaning tools, but the most important is an SIMP (Security Incident Management Plan).

Why You Need An SIMP

A written piece of documentation may not strike information security managers as the first weapon for counterattack, but it is the same as having a well-planned strategy for any army. "The purpose of having an incident response team is to ensure that there is a group of people who are properly skilled, who follow a standard set of procedures and who are singled out and called upon when this type of event takes place," according to Shon Harris, president of Logical Security (www.logicalsecurity.com).

A good incident management plan will provide a number of benefits to the security

Go to Page 10

Enterprises need to have a response in place and hope it is rarely needed.

In This ISSUE

COVER FOCUS

New Year's Resolutions For The Data Center

What better time than the start of the new year to make some resolutions for your data center? Get a jump-start with expert tips for cleaning and organizing your data center, better managing risks, and more.

Control Data Center Physical Assets	1
Clean & Organize The Data Center.....	8
Better Manage Your Risks.....	9
Showing IT's Value To The Business	11

TECH & TRENDS

Security Incident Management | 1

While there is nothing wrong with information security departments that like to use an ounce—or even a pound—of prevention, what if they don't have an ounce of cure?

Blade Servers: Issues To Watch For | 19

While blades offer a number of advantages over conventional rackmount servers, IT experts don't give them an unqualified recommendation because blades can pose some nasty surprises for users who don't do their homework.

Managing A Corporate Merger | 21

While a company with billions in annual sales may be able to take chances and absorb the loss of a bad acquisition, smaller businesses have less room for error.

Entitlement Management | 22

IT has to stay ahead of entitlements so that they comply with precise security policies. Otherwise, an enterprise constituent could gain more privileges than policies intend.

Product Releases | 13

■ **AdventNet** released ManageEngine Password Manager Pro 5.0 privileged password management software. ■ **Copan Systems** is partnering with **Bycast** to provide a new cost-effective archive in the Revolution 300 Series Enhanced MAID platform. ■ **EMC** announced the latest version of its Invista for SAN virtualization software. ■ **Fujitsu** introduced several upgraded PRIMERGY servers designed for the high-performance hardware requirements of data centers. ■ **Kyliptix** announced Kyliptix Business Suite, a Web-based program to bridge information flow throughout an organization. ■ **NetEx** announced HyperIP for VMware ESX Server, a software-focused WAN disaster recovery application. ■ The latest version of **Script-Logic's** Enterprise Security Reporter offers new features, including an Ad-Hoc Query Builder and enhanced discovery management.

EACH WEEK

Upcoming IT Events	4	Product Of The Week ..	18
MarketPlace News	4	Products At Work	20
Six Quick Tips	5	What's Happening.....	23
Product Releases	13	Three Questions	23
Opinions	17		

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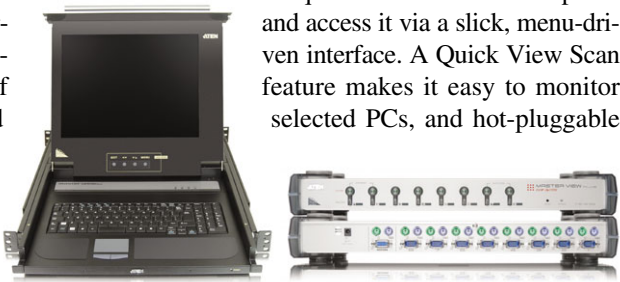
AVTECH Software

A Master Enterprise View

New ATEN KVM Bundle Provides Perfect Features For Monitoring & Maintaining Servers & PCs

TODAY'S DATA CENTERS require convenient, space-saving, streamlined KVM equipment. ATEN's 17" Single-Rail LCD Integrated Console and MasterView KVM bundle is designed with those needs in mind. ATEN's economy LCD KVM console, CL1000M, integrates a keyboard, 17-inch LCD, and touchpad in a 1U Slideaway housing. Setup is fast and easy. There is no software to configure, no installation routines, and no incompatibility problems. Slide the console module section out and flip up the cover, and you are ready to work.

When finished, flip down the cover and slide the console module back into the rack. By using the CL1000M to manage your installation, you save space; eliminate the expense of having to purchase a separate keyboard, monitor, and mouse for each PC if attaching to a KVM switch; and can take advantage of upgrading your current system. ATEN is now bundling the CL1000M with an eight-port MasterView Plus,



which helps reduce the need for redundant hardware. With the MasterView Plus, you can control up to 512 computers with a single keyboard, monitor, and mouse. And it requires no software. MasterView Plus is more than a simple eight-port KVM switch. A built-in Auto-Scan mode lets you monitor every attached computer for a specified amount of time, while the on-screen display lets you assign a unique name to each computer and access it via a slick, menu-driven interface. A Quick View Scan feature makes it easy to monitor selected PCs, and hot-pluggable

capabilities mean you can add or remove PCs for maintenance without powering down the switch. The MasterView's 1U, 19-inch rack-mountable casing and status-monitoring LEDs make it ideal for server rooms or other multicomputer environments.

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NEWS



Opera Files Complaint With EU

OPERA SOFTWARE has filed a complaint with the European Commission contending that Microsoft illegally ties Internet Explorer to its Windows operating system and hinders interoperability by not following industry-accepted open standards. Both issues make it difficult for Opera to compete with Microsoft, according to the complaint. Opera is asking the commission to force Microsoft to start following open Web standards and to unbundle Internet Explorer with Windows and/or include alternative browsers preinstalled on Windows. Microsoft officially lost its antitrust case with the commission in September.

AMD Study Reveals Future Data Center Power Use ...

A RECENT STUDY COMMISSIONED by AMD predicts that the current growth of power consumption in data centers worldwide means that in 2010, data centers will require an additional 10,000 megawatts of capacity unless more efficient practices are utilized. The study was conducted for AMD by Dr. Jonathan Koomey of the Lawrence Berkeley National Laboratory. For the study, Koomey tracked the patterns of data center energy use in five world regions: the United States, Western Europe, Japan, Asia-Pacific (excluding Japan), and the rest of the world. He also used regional server shipment data from IDC to complete the study.

... & Biggest Electricity Users

TOTAL WORLDWIDE DATA CENTER electricity costs have reached \$7.2 billion a year, according to a study sponsored by AMD, and server electricity use in the Asia Pacific region, excluding Japan, has increased more than in any other area. The region’s server electricity use has grown 23% a year between 2000 and 2005, compared to the worldwide average increase of 16% a year. The study also predicts that the United States’ share of all server electricity use will drop from 40% in 2000 to about 33% by 2010; the Asia Pacific region’s share will rise to 16%, up from 10% in 2000.

WebSense Issues 2008 Security Predictions

CONTENT-BASED THREATS will present the biggest security-related problems next year, according to security firm WebSense. “It’s

critical that organizations and individuals recognize that attackers are changing techniques and launching targeted attacks,” says WebSense Vice President of Security Research Dan Hubbard. The company says the Olympics could cause a surge in cyber-attacks, including denial-of-service attacks on Olympics-related Web sites. During 2008, hackers will increasingly use Web spam to post URLs to malicious sites within online forums, and attackers will focus their attention on the “weakest links” within the Web infrastructure to target the largest number of Internet users. WebSense says MySpace, Facebook, and other social networking sites are most vulnerable.

Google Docs Dominates Online Office Applications

ACCORDING TO UNIQUE-VISITOR statistics recently released by Web-audience research firm Compete, Google Docs is leading the pack among suites of online office applications. According to Compete, the Web site for Google Docs, which is currently still in beta and free for download, had more than 1.4 million unique visitors during the month of October, which is seven times more than during the same month last year. The statistics show that Google Docs is beating out not only start-up companies in the market but also Microsoft’s Office Live.

Apple Patents Storage Protection System

APPLE HAS PATENTED A SYSTEM it designed to protect storage devices from falls. The system, which was designed by Paul James Wehrenberg, uses a series of sensors that can detect sudden changes in gravity or acceleration. Once such a change is detected, the system could then temporarily park the storage device’s read/write head, thereby preventing, or at least mitigating, data loss. Notebooks, digital cameras, handhelds, and onboard vehicular computers could benefit most from the technology, according to the patent request documents filed with the U.S. Patent and Trademark Office.

Palm Lays Off Employees

AFTER ANNOUNCING PRELIMINARY second-quarter results that fell short of its expectations, Palm has reportedly begun laying off some employees as part of a restructuring plan. The company declined to specify the exact number of layoffs, and reports have ranged from 100 employees to several hundred; Palm employs about 1,200 people worldwide. Palm says it expects to report a second-quarter loss of between 22 and 24 cents a share with revenue of between \$345 million and \$350 million. Palm credited the

quarterly loss to a delay in shipping a product it previously expected to have available during the quarter. The company had expected its revenue to be between \$370 million and \$380 million.

Sharp Sues Samsung

SHARP HAS FILED A LAWSUIT accusing rival Samsung of infringing on three patents related to LCD TVs and modules. The three patents relate to technologies used to achieve high brightness, fast response times, and wide viewing angles on LCD panels. Sharp, which is based in Japan, has asked for compensatory damages and an order prohibiting Samsung from producing and selling products infringing on the patents in South Korea, where Samsung is based. Sharp has already filed a similar LCD lawsuit in the United States.

Storage Software Revenues Grow In Q3

FOR A 16TH CONSECUTIVE QUARTER, the worldwide storage software market experienced year-over-year growth. According to IDC’s Worldwide Quarterly Storage Software Tracker, Q3 of this year saw revenues of \$2.8 billion, which is a 9.8% increase over the same quarter a year ago. The report also showed that the archiving market saw growth of 13.6%, spurred by e-discovery, regulatory compliance, and storage optimization needs. Although data protection and recovery was actually down from the second quarter, it too saw year-over-year growth of 13.1%, with five out of the top six vendors showing double-digit growth over Q3 last year.

Forrester Lowers IT Spending Predictions

IN RESPONSE TO AN ECONOMIC slowdown in the United States, analyst firm Forrester Research recently lowered expectations for next year’s U.S. IT spending. Although as recently as October, Forrester had projected an 8% increase in overall spending for IT hardware and software in the United States, the firm is now predicting that number to be closer to 5% growth. By the end of the year, spending on software, computers, and communications is estimated to reach \$377 billion, with that number increasing to \$394 billion next year, according to Forrester.

AMD Delays Releases

DUE TO TECHNICAL ISSUES, AMD has delayed the release of a few key products until next year. According to the company, both its new quad-core microprocessor, codenamed Barcelona, and its Phenom desktop platform will be available to the general public in the first quarter of next year. AMD’s Puma platform, which consists of chips aimed at laptop computers, will also be delayed until Q2 next year. In addition, the company has reduced spending on new product lines from \$1.7 billion to \$1.1 billion. The company has said that it will be next year before its business divisions are able to return to profitability.

Study Finds Most Companies Test Apps With Real Data

A RECENT SURVEY CONDUCTED by Compuware and the Ponemon Institute revealed that most companies use actual customer data to develop and test applications. In doing so, companies risk compromising that data. According to the study, titled “The Test Data Insecurity: The Unseen Crisis,” 62% of companies that participated in the study said they use real customer data throughout the application development process as opposed to disguised data. Types of data used include employee and vendor records, Social Security numbers, credit card numbers, and payment information.

UpcomingIT Events

- JANUARY -

Storage Visions 2008 Conference
January 5-6
Las Vegas, Nev.
www.storagevisions.com
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Florida Educational Technology Conference
January 22-25
Orlando, Fla.
www.fetc.org
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WCA International Symposium & Business Expo
January 29-Feb. 1
San Jose, Calif.
www.wcai.com

- FEBRUARY -

SCALE 6x - 2008 Southern California Linux Expo
February 8-10
Los Angeles, Calif.
www.socallinuxexpo.org
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Comptel Plus Spring 2008 Convention & Expo
February 24-27
Nashville, Tenn.
www.comptel.org

- MARCH -

Gartner Wireless & Mobile Summit
March 3-5
Chicago, Ill.
www.gartner.com/it/summits/ra11/index.jsp
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Secure IT Conference
March 4-6
San Diego, Calif.
www.secureitconf.com
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Help Desk Institute Conference
March 9-12
Dallas, Texas
www.thinkhdi.com/hdi2008
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VoiceCon
March 17-20
Orlando, Fla.
www.voicecon.com
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Boston SecureWorld Expo
March 26-27
Boston, Mass.
www.secureworldexpo.com
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Data Center World
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www.afcom.com

- APRIL -

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Computer Associates	CA	\$22.73	\$26.13	\$25.64	▼ 1.88%
Cisco Systems	CSCO	\$26.93	\$28.80	\$28.15	▼ 2.26%
Dell	DELL	\$25.45	\$24	\$24.02	▲ 0.08%
Electronic Data Systems	EDS	\$27.27	\$21.68	\$20.76	▼ 4.24%
Google	GOOG	\$455.58	\$699.35	\$673.35	▼ 3.72%
HP	HPQ	\$40.63	\$51.53	\$51.02	▼ 0.99%
IBM	IBM	\$95.25	\$108.47	\$106.31	▼ 1.99%
Intel	INTC	\$20.08	\$27.28	\$25.91	▼ 5.02%
McAfee	MFE	\$28.29	\$38.19	\$37.67	▼ 1.36%
Microsoft	MSFT	\$29.64	\$34.47	\$34.74	▲ 0.78%
Oracle	ORCL	\$17.11	\$21.37	\$21.25	▼ 0.56%
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Symantec	SYMC	\$20.83	\$17.41	\$16.46	▼ 5.46%

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SIX QUICK TIPS

Buying “Green” Can Help The Environment & Your Bottom Line

by Robyn Weisman

AT FIRST GLANCE, BUYING “GREEN” would seem to be at best a hassle and at worst a strain to your organization. After all, if there were financial or organizational benefits to doing so, wouldn't your organization already have incorporated it into your purchasing strategy?

Well, the good news is buying green does more than help the planet. You can save a lot of money thinking green as long as you have an actionable strategy in place. These tips should help you tease that strategy out.

Make Sure Your Green Strategy Is Financially Feasible

“Don’t be green for the sake of a T-shirt. Make sure that all your company’s green efforts are financially feasible and help the company succeed in the long run,” says Ben Stewart, senior vice president of facilities engineering at IT infrastructure provider

Terremark Worldwide (www.terremark.com).

Stewart recommends that in certain instances, organizations should consider laying out more on capital expenses for energy-efficient components and machines that will eventually help to minimize the operating expenses over time. “The greater efficiency provided by these components and machines will help companies recoup the added capital expense over time and begin to realize real cost savings by limiting the amount of power required to run them,” he says. “The larger the company, the larger the cost benefits, and this has the dual benefit of being environmentally and ecologically beneficial—a win-win for everyone.”

Focus On Flooring

Jim Smith, vice president of technology at data center solutions provider Digital Realty Trust (www.digitalrealtytrust.com), recommends that having the right

flooring helps tremendously with energy savings by maximizing the airflow within the facility and enabling your HVAC components to operate more efficiently without the need to draw excess power.

“The proper distribution of the perforated tiles of your raised floor is a simple yet effective way to reduce the heat in your data center and the load on your cooling components,” Smith says. “By ensuring that your floor is properly sealed and that your perforated tiles are not blocked or covered by equipment, you increase the overall flow of cool air throughout the data center.”

Look For Energy Star Products

Steve Capanna, senior research and policy associate at the Alliance to Save Energy (www.ase.org), says that computers, monitors, and imaging equipment (such as printers, copiers, and fax machines) that meet the new Energy Star specifications can save you a substantial amount of money over the long term.

For example, imaging equipment meeting the new Energy Star specifications saves users 25% over a noncompliant model. "Imaging equipment consumes more energy than one might think, representing 3% of national electricity expenditures," Capanna says. "Replacing just one noncompliant high-speed color copier with an Energy Star model can result in annual savings of about \$125 and lifetime savings of about \$660."

Capanna also points out that external power supplies have proliferated over the last several years, with an estimated 1.5 billion adapters in use in the United States today. That's an average of about five per person.

“Although Energy Star has not yet issued a standard for this equipment, it aims to come out with one in July 2008, which its projects will be 30% more efficient than noncompliant models,” Capanna says. “Since as much as 11% of our national electricity expenditures go towards paying for these external adapters, the savings could be enormous.”

Select An Energy-Efficient Cooling System

William Clough, CEO of OnScreen Technologies (www.onscreentech.com), a provider of advanced cooling solutions for electronics and microprocessors, says that it isn't enough just to find a cooling system for your server room. You need to make sure that your cooling system is energy-efficient, as well; otherwise, you may inadvertently be increasing your power consumption unnecessarily.

BONUS TIPS

Implement a Building Management Sys-

tem. Jim Smith, vice president of technology at Digital Realty Trust (www.digitalrealtytrust.com), suggests implementing a BMS (Building Management System) to gain insight and control of data center operations required to deliver energy efficiency. According to Smith, a BMS is a relatively inexpensive way to obtain that critical data necessary to manage the energy efficiency of a data center.

"A BMS enables you to capture and trend key performance data on major system components to identify variances in usage levels," says Smith. "Through the use of this data, the BMS can then be used to turn units off when not in use so that they use power only when necessary."

Consider consigning your outdated IT assets to an outsourcer that can sell them. While this article is focused on buy-

ing “green,” selling “green” should be part of your strategy, as well. Steve Hyser, asset management business manager at Canvas Systems (www.canvassystems.com), says that an asset remarketer can often get you full recovery value for IT assets that your organization can no longer use. Because these outsourcers specialize in refurbishing and reselling used equipment, they have the means to get the best price for your equipment.

Hyser cautions, however, that if you choose to use an outsourcer, make sure you are cognizant of potential security and legal risks when recycling or remarketing IT assets. He says, "Make sure the company offers a comprehensive onsite or offsite data erasure program and will certify that assets entering the secondary market or being recycled are free of sensitive information."

“It would be self-defeating to select a cooling system that consumes additional energy like high-speed, power-hungry fans,” Clough said. “Energy-efficient cooling systems employ a hybrid approach and leverage the inductive properties of materials like carbon to perform cooling functions while minimizing power to operate.”

In addition, make sure your selected data center cooling system is safe. “Liquid cooling systems often contain toxic materials that can leak,” Clough says. “Advanced cooling systems with hermetically sealed chambers of environmentally ‘friendly’ liquid will ensure the fluid is contained.” **P**

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Clean & Organize The Data Center

What Your SME Can Do To Stay Ahead Of The Clutter

by Chris A. MacKinnon

WITH THE NEW YEAR right around the corner, it's a good time to think about the things that we sometimes put off until the last minute in the small to midsized enterprise. Two of those things we tend to ignore are data center cleaning and organization.

According to Gartner Research, half of all existing data centers will be overhauling their power and cooling solutions during the next few years. For reasons such as this, it is important to be familiar with good data center organizational practices. Every data center also needs to be cleaned to maintain the health of the equipment, the health of the staff, and the environmental aesthetics.

Bill Montgomery, CEO of Premier Solutions (www.premiersolutionsco.com), says contrary to popular belief, data center cleaning is not only for large enterprises. Montgomery notes, "Over 50% of our client base is represented by the small to midsized enterprise. As IT grows in the data center, so does the strain on the capacity to support existing infrastructure. SMEs need to stay at least a few steps ahead of the growth." He says data center cleaning and organization should be performed, at a minimum, on a quarterly basis for the top of the floor. Montgomery says many hardware companies recommend these services be performed on a monthly basis.

Top Tips

Paul Musick, vice president at ProSource Technical Services (www.team-prosource.com), offers the following four short (and inexpensive) ways to keep the data center clean and organized:

- Place sticky mats at every entrance to the data center. Sticky mats can help prevent contamination from entering your critical spaces.
- Use wall coordinate signs. A grid system can help personnel easily identify rows and columns in the data center.
- Keep cardboard out of the data center.
- Use red tape to mark an X on the ground to signify trash. This will prevent costly items left in boxes from being thrown out.

Get Involved

But what does data center cleaning and organization involve? Jason Roth, national training director for Sterile Environment Technologies (www.set3.com), says data center cleaning in the SME involves proper planning in advance of hiring a data center cleaning company. He says three major things to look for when conducting a search for the right data center cleaners are training, experience, and security.

Roth says, "A data center cleaning company should be trained according to ISO standard 14644, data center safety, and access floor industry standards. Also, the company should be able to prove that they are able to conduct testing for unseen forces, such as microscopic particles and static."

Roth says a "well-meaning" janitorial cleaning service can cause downtime to a data center due to improper equipment and techniques. "The facility may look great; however, normal industrial janitorial cleaning techniques cause downtime," he notes. "Chemicals and equipment cause significant issues such as particulate surges (from improper vacuums or techniques) at levels unseen by the naked eye or can create corrosion (from improper chemicals) on the circuit boards of the air-cooled servers."

Start Here

So where do SMEs begin? Roth says many have asked other data center managers for a referral. He says, "If finding a referral is not working, look in an industry magazine such as *Processor* or online for a search word such as 'data center cleaning' and do your research first, before you call. Improper janitorial approaches will be read-

ily apparent from the site. Also, pictures of improper equipment (such as common orbital buffers rather than contained equipment) used in their advertising already shows improper training and application, so calling them would not even be necessary."

Roth says that typically a good data center cleaning company will leave information such as its history, data center under-



standing, recommendations, and basic information on what it is able to do on its Web site, along with contact information.

According to Roth, security is what a data center spends a lot of money on—from backup generators to secure badge entry. However, he says, data center cleaning could be a weak link if SMEs are not careful. Roth explains, "Sometimes the lowest price may bring you the lowest security, from untrained workers to improper insurance. Make sure to ask a data center cleaning company for information on how it trains and the company's training certificates. It should also have proper insurance from an A++ rated insurance company for at least \$3 million umbrella coverage."

Paul Musick, vice president at data center cleaning firm ProSource Technical Services (www.team-prosource.com), says data center cleaning for SMEs has several faces.

"For example," Musick says, "some SMEs may be using a colocation facility to house their servers. If this is the case, they need to make sure these locations have a 'true' data center cleaning company that can provide them with preventive maintenance to their facility. Ask the facility owners: Who cleans the facility? How often is it cleaned? Are the cleaners trained, and what chemicals are they using? In this type of scenario, the SME is the customer, so they need to demand their protection of livelihood."

On the other hand, Musick says if SMEs maintain their own facilities, then they must weigh their desires against reality—that is, the budget. Musick says, "If this is the case, then try to budget a single cleaning once a year. If necessary, remind the accounting department how much downtime can cost. Many SMEs pay more per year to have their cubicles cleaned than their data center."

Method Madness

Although every SME is different, Roth says there are common cleaning and organizing methods that should take place. He says typical data center cleaning programs should schedule in advance and plan to clean subfloors (if applicable), exteriors of equipment, and top of access floors. "There are hundreds of services that can be added to this basic standard cleaning from most professional data center cleaning companies," Roth notes. "The most important thing for a data center manager to do before the cleaning company arrives is to remove stored items that are in the way and make as much of the room accessible as possible."

Roth says data center cleaners can only clean areas visible and accessible, so the more junk left on the floor or under the floor may inhibit their ability to clean properly. "The data center cleaners should provide a complete report on the tests taken and the recommendations based on their findings and for better organization (as with cable management or storage options) within two weeks of the date of service," he says.

Roth says there are some new racking designs that seem to use more vertical space, which seems helpful for real estate within a data center. He adds, "Other helpful advances are items such as motorized sensor-controlled mobile tape storage units which have key lockouts—which seem to be working for many colocation data centers, as it adds security without building cages or walls." ■

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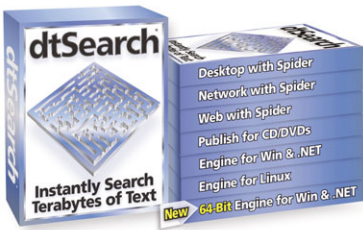
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Better Manage Your Risks

Find Ways To Minimize Their Impact

by Elizabeth Millard

“RISK MANAGEMENT” is a fairly mundane-sounding term that actually has a flurry of potential horror stories at its core. Consider, for example, the risks that most commonly have to be managed: power outages, employee theft of data, severe weather emergencies, litigation from improper equipment disposal, storage failure, and many more.

Equipment problems or inefficient procedures can also create a significant amount of business risk, as employees of different departments sit idle or have to change their strategies to accommodate the technology setup.

Unfortunately, you can’t completely eliminate risk—problems will always crop up in a company and in an IT department—but at least you can manage risk.

Spend Time Identifying Risks

In standard risk management methodology, there are several ways to check risk identification, including common risk checking, which targets known risks of specific industries, and objectives-based risk

identification, which breaks down risks according to project teams or certain goals.

One particularly useful method for SMEs is called scenario-based risk identification, in which different events are considered and followed to several potential outcomes. For example, what would happen if the company lost all power for a whole weekend? Or what would the effect be of all the customer data being exposed? A long session of brainstorming shudder-inducing situations could reduce risk by allowing a company to put better procedures and best practices in place.

In examining risks, it’s important to understand that there are business risks—which impact productivity, sales, and other operations—and also legal risks. For instance, if customer data is exposed and that customer suffers as a result, the company could be sued.

Enterprises have found themselves in court before with issues related to instant messaging, improper data storage, and even harassment charges if technology is used by an employee to send threatening or improper messages to another employee or someone outside the firm.

Outsource Equipment Disposal To The Right Company

Without liability insurance connected to equipment disposal, a company could be held liable if computers get tossed in a landfill or customer data is exposed, even if the company has hired a third-party company to do the disposal, according to Rike Sandlin of asset management firm Intechra (www.intechra.com).

To minimize risks, Sandlin suggests finding a reputable service company that will do the work rather than navigating the many local regulatory issues that might crop up. When hiring a firm, key attributes should include robust systems and processes, fully auditable reports, a no-landfill

policy for e-waste, indemnification against environmental and data security risks, logistics capabilities, financial stability, and a proven track record.

Minimize Data Loss Risk By Limiting Responsibility

In some small to midsized enterprises, the IT department might set up data backup, but users may control it at some point. In a surprising number of companies, interns or receptionists are responsible for handling storage tapes, says Larry Velez, founder of tech support firm Sinu (www.sinu.com). “Ultimately, you should think about who gets fired if this data is lost,” he

Determine Whether Storage Is Relevant

Also important is to look at what type of data is being stored, Masiello adds. If there are Social Security numbers in the system or other types of sensitive data and there’s no need for it, a company may be taking on risk unnecessarily. “With Google Desktop and other search appliances, you’re going to see more systems put at risk,” Masiello says.

Velez’s suggestion is that every piece of data should have a life span. If regulatory requirements mandate keeping records for seven years, Velez believes they shouldn’t be kept for longer unless there’s some compelling reason. “Don’t say you’ll cross that

bridge when it comes in seven or 10 years from now,” he says. “It’s better to plan data destruction now and lower your risks for the future.” Even if a company does want to keep the data, risks can be managed by taking it off the network and burning it onto a DVD, for example, which can be housed in a safe-deposit box.

Understand Larger Implications Of Risks

In preparing an analysis of risks, experts note that more than just IT ramifications should be part of the equation. Financial and budgetary impacts should also be included. For example, if bad weather caused the accounting department to be without its data for two days, what would the impact be in terms of productivity, accounts payable, and technical support?

It’s likely that other risk management is being done at the enterprise in different departments. Creating a discussion or embarking on a formalized plan that melds these efforts together can be an important first step toward a holistic risk management strategy that minimizes problems across the enterprise.

If necessary, bring in an outside consultant that specializes in risk assessment and don’t invite only IT to hear the results of the findings. Risks, whether in security, data, or equipment, can impact the entire business, and the more insight added from other departments, the better.

Top Tips

- **Check the company’s liability insurance.** Does it cover data loss effects, data exposure, or other potentially threatening situations? Insurance can’t cover everything, but adding to a policy can be helpful.
- **Be flexible in changing the risk management plan.** Revisit the plan often and make it a dynamic strategy, not a one-time result of brainstorming.
- **Prioritize risks according to probability and impact.** A data center in Minneapolis, for instance, shouldn’t worry about hurricanes unless it has data storage or offices in Florida.
- **Educate yourself.** There are courses at colleges that cover risk management and IT, so spiffing up your knowledge base with deeper training could provide fresh insights.



says. “If it’s your managed provider or hosting facilities, then think about discussing risk with them more often. If the arrows point back to your staff, you may be carrying too much risk.”

Managed security services aren’t the right fit for every company, but for those where it makes sense, they can reduce operational cost, decrease the amount of software on a network, and move content filtering outside the network perimeter, notes Sam Masiello, director of threat management at MX Logic (www.mxlogic.com). “This is also a benefit for companies that are impacted by recent legislation that applies to messages that have actually hit the company’s network,” he says.

In preparing an analysis of risks, experts note that more than just IT ramifications should be part of the equation.

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Control Data Center Physical Assets

Continued from Page 1

when cataloging virtual machines. However, he notes that automated discovery isn't efficient at locating obscure gear or isolated networks and can encounter difficulty with complex server configurations.

"Manual discovery is the old-school approach of walking the floor," Hillier says. "It is good at finding items that may

Into The Future

Controlling your present-day physical assets is one challenge, but making moves now to preserve future control is another. This is where designers, builders, and managers need to work closely during the asset purchasing phase, says Saul Levine, principal at Horizon Project Advisors (www.hpadvisors.com).

"Understanding ahead of time what equipment will be installed will [help] designers and engineers prepare for energy load increases and cooling requirements," Levine says. "As watts per square foot increase, HVAC system failures have a much more dramatic impact. When failures occur, temperatures can spike in just a few minutes, causing significant damage. New equipment has a diminished tolerance to handle these rapid increases in temperatures."

Levine explains that when enterprises work backward to construct a data center or devise an interim solution after purchasing assets, major problems can—and often do—occur. Coordinated planning is necessary during the purchase process to ensure that significant costs and other issues don't arise.

be difficult to detect electronically, such as printers and complex servers—some of which are easier to understand when you are looking at them. On the downside, it is becoming increasingly difficult to manually inspect environments with complex SAN configurations, virtual servers, and virtualized networks."

As some managers discovered this year, complex environments can easily spiral out of control, leaving data center personnel without a clue as to where assets begin and where they end. In these situations, it might be best to hire an outside source to conduct a professional evaluation of the entire environment. This evaluation should examine the calculated capacities of space, power, and cooling, as well as calculate wasted space, inefficient use of power, and cooling loss via air bypass, says Lee Kirby, vice president and general manager at Lee Technologies (www.leetechnologies.com).

"Relying on in-house facilities when looking for a solution for difficult issues created by the status quo can often bring just more of the same," Kirby says. "An outside consultant can not only identify the specific issues; they can often identify simple solutions to complex problems and fit them into allowable budgets."

Budgets in particular represent a key component in obtaining control over physical assets. "Far too often, companies fail to put realistic numbers in their budgets to allow for upgrading or purchase of equipment and expansion," says Ralph Cali, senior project manager at Horizon Project Advisors (www.hpadvisors.com). "We recommend to our clients that they take a hard look at what they

will need in terms of space, cooling, and power needs today and into the future."

Eye In The Sky

Once an enterprise obtains a solid perspective of its data center's physical base, it should deploy a strategy that provides continued understanding of what assets it has and what those assets are doing. Cary Frame, general manager for SharkRack (www.sharkrack.com), says that device monitoring and asset tracking both are useful for this task.

Device monitoring solutions are typically Web-based and provide a data center layout screen to visually locate devices, Frame says. But while they emphasize alerts and event logging, they generally don't cover actual IT assets such as hard drives, servers, and storage devices. That's where asset tracking products come into play.

"These solutions are designed to track things like serial numbers, warranty periods, maintenance, and software revisions," says Frame. "Oftentimes, they track based on the specific server rather than on physical location. Sometimes, RFID (radio frequency identification) tags are used in lieu of traditional asset tags. The market is heading towards asset solutions that automate the information input and auto-detect their physical location, either at the data center level or at the rack level."

For environmental monitoring, products from SharkRack, Aperture, and others, including Power Watch from Data Center Resources (www.datacenterresources.com), can help track power consumption, cooling, space, and other physical resources. Aperture's VISTA, for example, not only

monitors key elements in real time but also tracks infrastructure usage over time.

No Quick Fix

CiRBA's Hillier stresses that keeping control over the data center's physical assets should be treated as a long-term discipline, not a short-term discovery. "Reaching a crisis point and reacting with a 'big bang' discovery is never as good as having processes in place to maintain a constant understanding of an environment. People would never fly with an airline that didn't know what was inside their planes, yet they routinely run critical transactions through similarly mysterious data centers." 

Top Tips

Lee Technologies' (www.leetechnologies.com) Vice President Lee Kirby offers the following initiatives that enterprises can follow to better understand physical assets.

- Create an information template for the assets deployed in the data center detailing heating, cooling, and manpower requirements for the service life of the asset.
- Work with the facility engineering team to determine the net effect on the data center environment when an average asset deployment is made (cooling impact, power management, etc.).
- Map the life cycle process for the asset in the data center from shipping dock to recycle and all the touches it receives and teams needed to support its life cycle.
- Perform a real-cost analysis against the project ROI to validate future requests by customer or application.

Build A Usable Security Plan

Continued from Page 1

staff, including coordination of their actions during the most critical moments. A skilled professional can give in to panic when he realizes that one of the threats he studies on the Internet has penetrated his place of employment. Following a documented playbook not only ensures the right steps are taken, but it calms nerves. Even before an incident occurs—or if it never does—simply developing (and periodically reviewing) your SIMP becomes an excellent means of training staff how to act during an incident. "When a suspected crime is reported, the incident response team should follow a set of predetermined steps to ensure both uniformity in approach and that no steps are skipped," says Harris.

More than the security staff, however, the SIMP is a guide for management. Incidents often bring more attention to a security team than they are used to, sometimes in the form

of managers from various levels who want to get involved. By having a plan (which management should have approved during development) already available, their assistance is structured by planning that was performed before the current crisis. The SIMP also provides a process that can be followed during an emergency by people outside the normal security team.

Communication is another goal of the SIMP, which should formalize the all-too-often-forgotten steps of keeping key areas of your organization (or external partners if appropriate) informed about an incident. "Communicating the incident is probably one of the most important items in the plan," according to technology consultant Robert Shimonski.

Finally, many information security assessments and audits, including HIPAA, Sarbox, and PCI, require evidence that a consistent process is used to respond to

security incidents. A documented SIMP is the proper response to such requirements.

What The SIMP Should Include

An incident management plan can take many forms and will emphasize different areas and threats for different organizations. There are some key components that can serve as a starting point for building a plan.

One of the first steps in plan creation is to define what you mean by an incident. As William Lynch, senior consultant for CTG Information Security Services (www.ctg.com), notes, "One of the most challenging steps is deciding what constitutes an incident." There are plenty of definitions, but the key is to define your own organization's idea of what should be addressed by this plan (and what may not be covered).

The SIMP should also define the people who will be involved in incident response. Beyond the core security team(s), your plan should describe other areas (such as network management, server administration, backup, and recovery) that will work through possible incidents and their specific responsibilities. As this is opening the process to a larger group, it is also important to define who will be managing overall actions, as well as communication to other areas of the organization.

An incident management plan should describe general response processes and decision points, and a visual diagram is an effective way to do so. Workflow diagrams will probably need additional written detail to describe choices that will be made during an incident.

The plan should also include descriptions of any formal communication required during an incident, either internally or with outside partners or agencies. Examples may be contact with law enforcement agencies, especially if customers' private data may have been compromised in an incident. "The team should have proper reporting procedures established, have the ability to provide prompt reaction, have coordination with law enforcement, and be an important element of the overall security program," says Harris. The specific actions taken in

Suggested Phases Of An Incident Management Plan

Organizing the response plan can be done by time in the response activity, by internal groups, or in other ways. One widely used method is to define the incident management plan into phases that are generally (but flexibly) linear. Here are some widely used plan phases.

- **Prevention.** Description of protective controls, which are often key to understanding later aspects of the incident response.
- **Detection.** Incidents begin with the action that triggers awareness of a problem.
- **Analysis.** This phase includes verification that an alarming activity is an actual security incident, as well as initial triage.
- **Containment.** Describes the early response activities, primarily intended to limit the scope of an incident.
- **Eradication.** This includes actions taken to completely eliminate the attacking agent or vulnerability that was exploited.
- **Recovery.** Actions taken to restore data or systems to pre-incident state are outlined.
- **Post-incident.** A final phase should include steps to review, communicate, and/or document incident activities as needed.

response to every incident should be documented. Although other incident-tracking tools may capture some of this information, it is a good idea to include a summary report template within the plan itself.

However, keep in mind that the incident management plan is not the place to document detailed procedures. This plan is not the place for batch scripts or firewall control commands (though it may describe what group defines and maintains such procedures). The Security Incident Management Plan is not the only tool your organization will reach for during a security compromise, but it can be your battle plan for using all the others in the best way possible. 

Three Key Tips For An Effective Security Plan

Build a plan to manage incidents, not just respond to them. It is probably more common to hear this kind of plan referred to as a Security Incident Response Plan. Throughout this article, it is called a Management plan for a reason: to emphasize that it should be utilized for an enterprise's full engagement with security breaches and not just during the heat of response. The SIMP should include workflow plans throughout monitoring and detection (pre-incident), as well as after detection. Think of this as a tool for managing the entire life cycle of a security incident.

Practice the plan. "Without thorough testing, you cannot be confident that the measures you have in place will be effective in responding to incidents," according to technology consultant Robert Shimonski. When you get a first draft of your plan, walk through it with your core security team. You may even consider starting to practice

when the first draft is halfway finished. Practice can take the form of a group read-through, a tabletop exercise (in which an example incident is addressed only through discussion), or a full simulated exercise. Tabletops and simulated exercises should be conducted several times a year. Reviewing and practicing the plan will train your staff for real incidents and also help discover ways to improve the plan.

Never finish the plan. While you can "complete" the initial version of your SIMP, at least for the sake of your performance review objectives, the Security Incident Management Plan should never become a finalized, "written-in-stone" manual. That could lead to it sitting on a shelf, unused even when it's most needed (during a real incident). Tools, staff, and threats all change, so always be ready to change your plan—hopefully, for the better.

Showing IT's Value To The Business

The Tech Department Can Prove Its Worth

by Don Reisinger

IT IS AN EXTREMELY IMPORTANT element of any business. And while some companies have relegated their IT departments to the level of “support staff,” thus showing how little they know of the importance of IT, others have found the true value of IT. IT is not only important; it’s an element of any business that provides a benefit to both the company and its employees.

In today’s business environment, IT can no longer be an island where the IT sector of the business is entirely disconnected from all other facets of the enterprise. Instead, the IT infrastructure should be (and to some extent, has become) an important aspect of all parts of a business to improve the company and add to its bottom line. And with that in mind, IT has been able to not only help businesses, but its work with employees has created an environment where the entire organization is better run.

IT Helping Businesses

As Tom Austin, group vice president and fellow at Gartner Research, says, “IT is dramatically altering how we work. For example, creativity can be unleashed and augmented.”

But beyond that, IT has become an important part of any business operation. Peter Sacco, president of PTS Data Center Solutions (www.ptsdcs.com), says, “PTS is witnessing all businesses, from large to small, starting to embrace a value effort by expanding what was traditionally thought of as IT to a broader corporate responsibility: information systems. This new information systems paradigm is responsible for the development and implementation of business processes throughout an organization, and these



processes are often technology-based and therefore the logical domain of the technology leaders of the organization.”

The IT infrastructure in a business helps the enterprise because most IT professionals perform tasks that are not only mission-critical but are entirely unique and are tasks that other employees could not complete.

As Sacco explains, “Today, the IT umbrella is quite large, and it covers many disciplines. IT professionals perform various duties, including installing applications, implementing LAN/WAN networks, designing information databases, and managing communications. A few of the duties that IT professionals perform may include data management, networking, network security, as well as the monitoring and administration of entire systems.”

IT Helping Employees

Perhaps most importantly, IT has helped improve the employee’s ability to perform tasks and get jobs done in the most effective and efficient manner. And although Austin says that “it is not in the mission of the IT department to enhance employee performance,” the IT division of any well-run organization has been

able to enhance employee performance by simply staying ahead of the curve and offering the services that increase a company’s bottom line.

Sacco says, “Used properly, IT allows employees to accomplish more, with greater accuracy, in less time, while utilizing less company resources.” That’s an extremely valued commodity of any well-run organization.

Proving Its Worth

The current state of the IT industry dictates that many businesses today do not realize the importance of the IT element in the organization. And although IT helps improve how an organization is run and increases the utilization of employees without sacrificing those gains through costly technological endeavors, the IT

department must constantly prove its worth in an organization.

According to Andy Woyzbun, a lead analyst at research firm Info-Tech, there is a formula that IT professionals can follow to prove their worth.

Woyzbun believes that IT professionals should start by “establishing targets and achieving them consistently. Deliver services, such as responding to help desk queries, on time. Keep operational quality high. Complete application enhancements and projects, such as supporting a new product-pricing plan, within the timeframes required to achieve business objectives.”

Next, Woyzbun believes it’s important for IT professionals to measure their worth. “If a project is predicted to bring \$10 million revenue in the door, calculate some portion of that revenue and attribute it to IT’s contribution to revenue. IT’s contribution to overall revenue is frequently overlooked as they typically are a cost center.”

As described in his book, “Measuring the Business Value of Information Technology: Practical Strategies for IT and Business Managers,” David Sward emphasizes that organizations will have to undergo a cultural change in viewing IT as a “value center as opposed to a cost. Nevertheless, the process for proving value is always the same: define metric variables, measure a baseline, implement an IT solution, measure the results, determine the value.”

Bringing Innovation To The Workplace

IT professionals are an extremely important element in helping a business discover new threats; innovate new products; and learn, lead, and relate.

As Woyzbun points out, “IT can leverage information from its operational systems to generate business intelligence and thus help identify positive or negative trends and improve decision-making.”

“In terms of leadership, IT provides support to all business areas (sales, service, marketing, and research) through a variety of applications. Ongoing consultation with the business units helps identify application enhancement opportunities.”

By engaging in activities that can show management how important the IT department is, while showing its effect on both the bottom line and employees, IT professionals should expect greater importance in any organization. ■

Top Tips

- Show the impact the IT department has on the bottom line
- Show how the IT department increases employee utilization and overall effectiveness
- Innovate and find new techniques that would appeal to management
- Complete all tasks on-time and on-budget

Perhaps most importantly, IT has helped improve the employee’s ability to perform tasks and get jobs done in the most effective and efficient manner.

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- Supports 16GB FBDIMM.
- 16 Port SATA-II RAID Controller.
- 16x250GB hotswap SATA-II Drives Installed.
- 2x10/100/1000 LAN onboard./ 800W Red PS.



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- 1GB 667MHz FBDIMMs Installed.
- Supports 16GB FBDIMM.
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Product Releases

CLIENTS

■ **Ricoh Americas** introduced the GX2500, a color printer for the small office that utilizes Ricoh’s GelSprinter technology. The GX2500 is the first in the line of Ricoh GelSprinter products designed specifically for workgroups of up to three users. The GX2500 produces documents at 28ppm in both color and black-and-white using an enhanced viscous ink formulation. This printer supports resolutions of up to 1,200 x 1,200dpi and a paper capacity of up to 250 sheets. Vivid color documents are made possible by GelSprinter technology, which is not only waterproof and fade-resistant, but it also averts any smearing and bleed-through. The GX2500 also offers cost-effective features such as Level Color Mode, which enables businesses to reduce the cost per page, using less ink to produce high-quality images and graphics while maintaining legible text.

Ricoh Americas also launched the GX7000 GelSprinter color printer with GelSprinter technology, which eliminates smudging and curling by utilizing quick-drying viscous ink, belt-driven paper feeding, and a long-lasting printhead design. With a print speed of 29ppm in both color and black and white, the GX7000’s output is comparable to most laser printers and faster than most inkjets. Several features of the GX7000 help reduce color printing costs. The Level Color Mode reduces ink density for graphics and images without affecting the readability of the text, reducing cost per page for color prints and making it equal to that of black-and-white documents. Standard automatic duplexing also helps reduce power consumption and paper. The GX70000 boasts a 250-sheet tray, with an optional 250-sheet PFU and 100-sheet Multi-Bypass Tray capable of handling a variety of paper stocks and sizes. Additionally, the GX7000 can print documents up to 11 x 17 inches in size.

■ Two projectors from **Sanyo** claim to be the brightest two-lamp models around. The standard aspect ratio (4:3) LP-XF70 belts out 9,000 lumens at a resolution of 1,023 x 768. Meanwhile, the widescreen (17:10) LP-WF20 throws 1,366- x 800-pixel images at 6,000 lumens. Both are intended for commercial use and feature 10,000-hour automatic filters.

■ **Socket Mobile**, a division of Socket Communications, has announced a handheld computer designed for high security, a version of its SoMo 650 handset. The SoMo 650 M-HS (high-security) device does not have Bluetooth or a Wi-Fi radio. The 650 is designed to be scalable, durable, and secure for use in any area where security is paramount, such as the public sector. Features of the device include a lightweight form factor, a three- to five-year life cycle, Windows Mobile 5.0 Professional OS, a 624MHz processor, and programmable buttons. Pricing for the SoMo 650 M-HS begins at \$645.

■ **Sybase** released the latest version of its Eclipse-based design and development environment, WorkSpace 2.0. The software, designed for SQL developers, supports database and Web application development, as well as services deployment. It has several new features, including Eclipse DTP (Data Tooling Platform) and Services Toolkit plug-ins, as well as integration with Sybase Adaptive Server Enterprise, Sybase IQ, and SQL Anywhere. The software has support for

notification of real-time database events and also includes support for Sybase ASE 15. WorkSpace 2.0 now allows the creation and management of Sybase Search servers. Businesses can use WorkSpace to manage database applications and can take advantage of plug-ins to get customized functionality. WorkSpace 2.0 starts at \$495 per seat.

MESSAGING & TELEPHONY

■ **C2C Development** has introduced a connector for Archive One to NetIQ AppManager. With this product, it is possible to move email from an Exchange server to an Archive One archive. The connector also lets companies combine messaging data currently contained in multiple applications and servers. It responds to environmental changes that occur due to adjacent processes, as well. AppManager, together with the new connector, can perform live messaging system data stores and preindexed data searches.

■ **Mimosa Systems** has enhanced its NearPoint email archiving platform with its Mimosa NearPoint Disaster Recovery option, which ensures email accessibility and business continuity through automated disaster recovery for Microsoft Exchange environments in order to preserve application consistency, integrity, and uptime. Using the Disaster Recovery module, enterprise users have the choice of recovering Exchange services to a local or remote Exchange Server for speedy recovery in minutes, providing quick user access to Exchange mailboxes and archive message data in the event of a disaster.

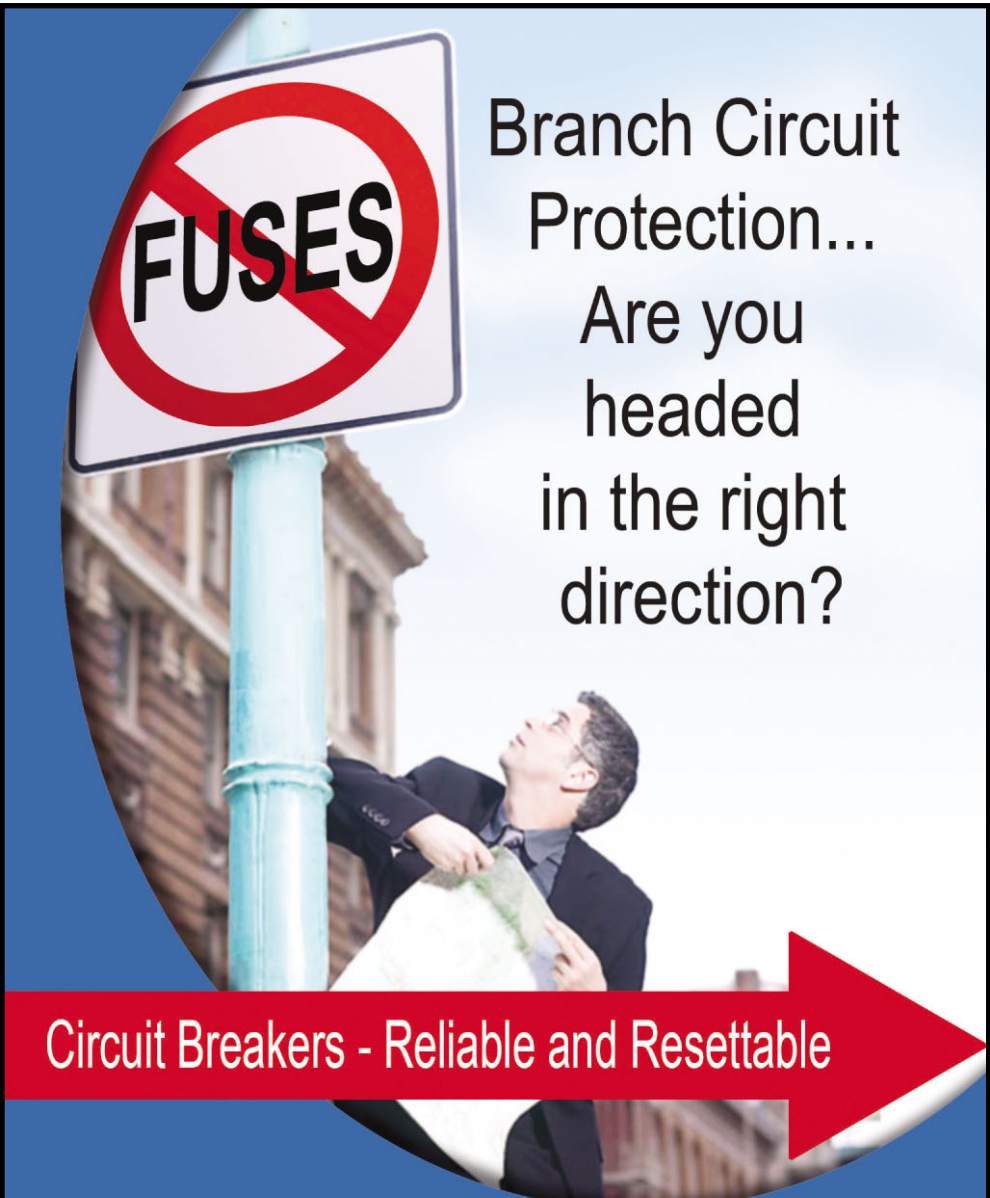
■ **Polycom** has announced the SoundPoint IP 560, a new model in its SoundPoint IP desktop line. The device enables full Gigabit Ethernet data transmission between networks and end users’ computers, providing a single IP connection to support the desktop. The device includes a dual-port GbE switch, four lines, integrated XHTML micro-browser, and advanced SIP features (shared call/bridge line appearance, busy lamp field, presence, text messaging, and buddy lists). The company says that when combined with its HD Voice technology, the IP 560 is ideal for enterprises either deploying or considering deploying advanced applications that require high-bandwidth network infrastructure. Polycom also says HD Voice uses ITU standard G.722 (wideband voice codec) to enable high-definition voice transmission. HD Voice also includes patented Acoustic Clarity Technology, which provide noise reduction, echo cancellation, and full duplex speakerphone abilities. The SoundPoint IP 560 is priced at \$469.

■ **Sonasoftware’s** SonaSafe Suite for Exchange Server combines replication with recovery features to provide a two-in-one failover/failback package. If disaster strikes, all Exchange users will be failed over to a server at a remote site. Once the admin rebuilds the primary server, data can easily be returned to the primary server. The software also has a test mailbox feature that lets administrators periodically test the failover/failback functionality without worrying about crashing the production Exchange server.

NETWORKING & VPN

■ **iPass** has released the Mobility Expense Calculator, an online tool designed to

Go to Page 14



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Product Releases

Continued from Page 13

help companies curtail wireless expenses by providing visibility into a company's total wireless connectivity cost. The calculator is designed to let enterprise IT and finance departments get an accurate estimate of their mobile access spending by answering questions about their mobile workforce and calculating likely expenses based in iPass' understanding of mobile usage patterns that different types of users have, as well as different access prices in different locations. As part of the release, iPass has also released an iPass Mobility Central Web site for businesses and employees. Users can access a complete toolkit at www.ipass.com/misc/mobilitycentral.html. The toolkit includes iPass Hotspot Finder, iPass Wi-Fi Hotspot Index, and iPass Hotspot Bulletin.

■ **Kentrox** announced Optima, a flexible, turnkey, carrier-grade platform that manages the automation of critical network tasks. Optima allows IT administrators to remotely connect, monitor, and report on all data from the network at any time. Once a problem within the wireless network has been diagnosed, Optima allows technicians to learn the source of the problem with diagnostic information designed to help fix the problem quickly. Optima gives service providers the opportunity to control cell-site network elements with real-time monitoring, site equipment controls, and proactive alerts.

■ **Kyliptix** announced the availability of Kyliptix Business Suite, a Web-based business software that utilizes AJAX and

LAMP technologies to bring users a single interface designed to bridge information flow throughout an organization. Kyliptix manages contact information, documents, and accounts, as well as lead generation and tracking, invoice management, and more, to provide a comprehensive Web-based service for SMEs. Business Suite provides services to individuals who want a better way to manage leads and contacts, and groups will benefit from collaboration of data within a central repository.

■ **Lancope** has announced the release of Flow Replicator, an appliance it says is the first commercially available virtual UDP (User Datagram Protocol) switch that quickly replicates and re-distributes any unidirectional UDP datagram. The appliance is based on Lancope's Linux-based StealthWatch System of appliances and includes such benefits as simplifying network device configuration, reducing network traffic, and reducing loads on routers and switches. The company says the Flow Replicator receives UDP packets, duplicates them, and delivers them to destinations based on user-configured rules. Destinations can be specified based on source IP, destination IP, and destination port. The Flow Replicator is available starting at \$12,995.

■ **Microsoft** has announced the public beta for its hypervisor-based server virtualization technology, Hyper-V, which is a feature with some versions of Windows Server 2008. Users can download Windows Server 2008 RC1 Enterprise with the beta version of

Hyper-V to assess the new technology, test applications, and plan future consolidation for business continuity and high-availability projects. The Hyper-V is available for the x64 Enterprise Edition, providing users more features and capabilities such as Quick Migration, high availability, Server Core role, and Server Manager integration. Hyper-V is designed to provide a wide range of customers with familiar and cost-effective virtualization infrastructure software that can help cut operating costs, boost hardware utilization, optimize infrastructure, and develop server availability.

■ **2SAN and ACARD Technology** announced the ADR-7104, a four-channel DVR designed for security surveillance. The ADR-7104 includes an on-screen GUI to let users easily access functions on the DVR. Additionally, the ADR-7104 features a SMART COPY function that can automatically back up data to a hot-swappable SATA hard drive without affecting other DVR operations. The ADR-7104 supports simultaneous multi-tasking for live view and playback, recording, data backup, and networking. It includes a hot-swappable SATA HDD tray and includes support for eSATA and USB external storage devices. For controlling security cameras, the ADR-7104 also includes pan, tilt, and zoom control features. You can manually record video, as well as configure video to record on a schedule, based on alarms, or based on motion.

■ **AdventNet** released ManageEngine Password Manager Pro 5.0, privileged password management software that serves as a secure vault for storing, accessing, and managing shared administrative passwords. The password storage allows IT managers to enforce standard password management practices, such as usage of strong passwords, automatically changing passwords, and controlling access to shared passwords. Version 5.0 includes Password Management APIs to query and retrieve passwords from Password Manager Pro for access to applications or databases and avoid hard-coding passwords. ManageEngine Password Manager Pro 5.0 also features uninterrupted access to passwords, Windows Service account password reset, notifications when passwords go out of sync, and enterprise dashboard reports. The annual subscription price for the Professional Edition starts at \$995 for five administrators.

■ **IBM** launched the newest iteration of its Tivoli Identity Manager, security software that lets network administrators regulate user access and manage compliance. Tivoli Identity Manager Version 5.0 handles user accounts, access permissions, and passwords for all local or remote users. The software employs a centralized interface for managing users, passwords, business roles, and access rights to all business resources. New features include the ability to demonstrate which users have access to what data and the justification for those rights, centralized reports on security policy, access rights and audit events, periodic management review and sign-off, and

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■ The latest version of **ScriptLogic's** Enterprise Security Reporter for SharePoint offers several new features, including an Ad-Hoc Query Builder, which can create customized reports, and enhanced discovery management, which helps administrators better manage discovery engines. The Security Reporter software supports Microsoft SharePoint Server 2007, provides 20 predefined reports, and supports eight file formats. ScriptLogic Enterprise Security Reporter for SharePoint collects document information such as changes, document ownership data, and access and site permissions, and the software's configurable discovery engine can pull information from specific subsites when needed. The software also includes enhancements that let administrators create discovery engines in remote locations and manage them from a single console.

SERVERS

■ **Fujitsu** introduced several newly upgraded PRIMERGY servers designed to address the high-performance hardware requirements of data centers. The new PRIMERGY RX200 S4 and RX300 S4 rack servers now support Intel's latest Xeon processors using Intel Virtualization Technology. The PRIMERGY TX200 S4 and TX300 S4 tower servers also support the new processors. Users of all systems can also take advantage of higher memory capacities. Based on currently available memory modules, the TX200 can support up to 24GB of RAM, the RX200 and RX300 up to 48GB of RAM, and the

TX300 up to 64GB. The TX200 S4, TX300 S4, RX200 S4, and RX300 S4 configurations start at \$1,325, \$2,072, \$1,706, and \$1,835, respectively.

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■ **Supermicro** is targeting SOHO environments with its new quiet 1U server chassis series. The SC502, SC503, and SC510 offer noise levels below 35dBA and are shallow to save space. The SC510 is 11.3 inches deep, while the SC502 and SC503 are 9.8 inches deep. The chassis each boast a 200W power supply that features a fan speed control. Supermicro optimized the chassis for its X7SBL, PDSBM, and PDSML series motherboards. The SC503 has front I/O ports, and the SC502 has rear I/O ports. Both support a full-height PCI add-on card or a 3.5-inch hard drive (or two 2.5-inch hard drives). They support low-voltage processors at up to 35W. The SC510 chassis supports 65W processors that have Supermicro's special passive heatsinks. They support up to four 2.5-inch hard drives.

STORAGE

■ **AXS-One** has released AXS-One Compliance Platform 3.7, an RCM (records compliance management) product that provides archiving tools and case management. This product provides rule-based data retention and manages records related to specific cases in order to ensure compliance and produce an audit trail. AXS-One refers to Version 3.7 as the Data Preservation Edition and provides workflow-based case management functions. AXS-One has also improved the PST and File System Archiving options in this latest version. It also includes

improvements to the Microsoft Exchange, Lotus Notes, and Domino email archiving modules.

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■ **Copan Systems** announced that it is partnering with **Bycast** to provide a new cost-effective active archive. The Revolution 300 Series Enhanced MAID platform, which includes Bycast's StorageGRID software, provides a self-healing, fault-tolerant architecture. The product is compatible with CIFS and NFS interfaces and offers real scalability—it scales from 20TB configurations to multisite, multi-petabyte configurations. According to Copan, its Revolution 300 MAID platform has low cooling costs and power requirements. Copan believes the system will help IT organizations that are facing pressure to handle large volumes of persistent data.

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■ **EMC** announced the latest version of its Invista for storage-area network virtualization software, which is designed to simplify and automate all aspects of an organization's data management. EMC Invista 2.1 supports better availability—even if localized outages occur—and support for double the number of virtual volumes and storage elements, five times the number of concurrent mobility sessions, and back-end load balancing. Other new features include a heterogeneous pooling and mirroring functionality; support for IBM DS4000 series arrays, HP PVLinks, and Sun MPxIO path management software; and integration with EMC RecoverPoint. The latest version and support for VMware ESX Server 3.0.2 should be available by the time you read this.

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■ **Kano's** NetCOR 6000 is a new iSCSI SAN for SMEs. The high-availability appliance offers enterprise-class IP SAN that's redundant and Intel-based and features the company's StorSAN Manager Console. The 3U rackmount device offers up to 15TB of SAS or SATA storage per unit and is expandable. Prices start at \$4,999.

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■ **NetEx** announced HyperIP for VMware ESX Server, a software-focused WAN disaster recovery application that aids in backup, recovery, and data replication applications while providing flexibility in deployment and performance scalability. HyperIP moves TCP data using patent-pending technology that accelerates and optimizes data replication and file transfers. By aggregating multiple data replication while limiting inherent network latency, HyperIP serves as a long-distance remote TCP/IP data transmitter. HyperIP for VMware will be available during the first quarter of next year, with prices ranging between \$6,000 and \$8,000.

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■ **STEC** is targeting enterprise server OEMs with its new MACH8-IOPS 8, 16, 32, 64, 128, and 256GB SSDs (solid-state drives). According to STEC, SSDs far outperform mechanical disk drives. The MACH8-IOPS drives over 1,000 random write IOps and 10,000 random read IOps. STEC touts the drive's random data access speeds and long-term dependability as features that make the drive particularly useful in enterprise servers. The MACH8-IOPS drives have STEC's proprietary 8-channel ASIC controller, which improves data access and power consumption.

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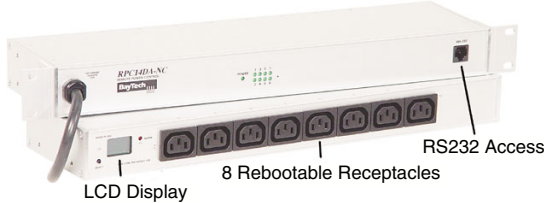
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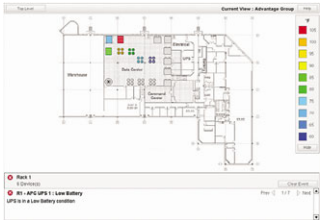
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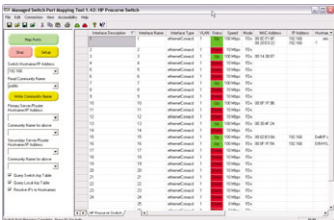
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Make DRP Your New Year's Resolution

Statistically speaking, odds are you will never have to invoke your company's DRP (disaster recovery plan). This is cold comfort, however, because disasters care not for statistics. Catastrophes will nullify your ability to deliver IT services regardless of your company's size, location, or risk profile. Don't be a victim: Make DRP a priority in 2008.

Now that hurricane season is over and news broadcasts of calamity no longer fill the airwaves, it's a good time to revisit disaster recovery planning with a clear head.

Speaking With Clients: What We Found

A few months ago, Info-Tech Research Group conducted a survey to determine just where our clients were in terms of their DRPs. We found that nearly 40% of enterprises do not have a working DRP in place, an alarmingly high number to say the least. Or, if you choose to take the "glass is half full" approach, a comforting 60% of enterprises have the assurance of a DRP. Regardless of where you fall in the 40/60 split, no DRP is complete without a number of key success factors.

Buy-in from senior management. In some cases, it's the C-level crowd that drives the DRP initiative, which makes life a lot easier for IT throughout the project's life cycle. In most cases, however, senior management begrudges spending anything on a project with no perceivable ROI. If this sounds like you, perform a business impact analysis, aka BIA, to demonstrate the importance of DRP to execs.

The BIA involves interviewing staff to identify and prioritize critical processes. A report is made of these findings, including details of which areas are most critical and how quickly processes become critical after an emergency. The BIA also provides help in planning, identifying, and defining recovery time objectives, losses, and costs. IT managers use a BIA to demonstrate how much a day of downtime costs vs. the annual cost of protecting the enterprise from such an outage of services.

Consensus amongst business units. For dispersed organizations, addressing culture gap will be the greatest obstacle to overcome. Standardized templates and tools will be necessary for consolidating reports, assessments, and reviews from disparate locations with disparate procedures.

Above all else, understand what business units wish to achieve through the DRP. Is it customer services, compliance, or something else? Whatever the reason behind the mission, obtain a clear understanding of key drivers. Equipped with this knowledge, you're in a better position to craft a DRP that meets organizational goals and objectives while still maintaining cost-effectiveness.

How much risk the company is willing to live with. Determining threat vectors is important; equally important is calculating the probability that a threat will occur. There

are some serious questions to answer. Are you more concerned with electrical black-outs, telecom failures, or hardware defects? Does the threat of sabotage come from inside or outside the organization? Is your company likely to get smacked by a tornado, or is a potential burst water pipe near the server room a more realistic threat?



ROSS ARMSTRONG

Ross Armstrong is a senior research analyst with Info-Tech Research Group, a London, Ontario-based research and professional services firm focused on providing premium research and advice geared to the unique needs of IT professionals of mid-sized enterprises. Armstrong holds a master's degree in English from the University of Western Ontario and has extensive experience in IT technical writing and automotive writing. He is also the author of the Info-Tech Research Group guides "Securing Your IT Environment" and "Moving: An IT Perspective."

you must define what is required to meet recovery objectives and whether these goals are realistic. There are two types of recovery objectives, both equally important.

Recovery time objective, or RTO, refers to the period of time within which systems and applications must be recovered after an outage and how long a failed application can be down before it begins to cost the enterprise significant money. Recovery point objective, or RPO, refers to the point in time to which systems and data must be recovered after an outage and to the amount of data that must be available and recovered in order for operations to resume successfully.

Testing procedures. Our survey found that 25% of enterprises never test their DRP against stated recovery objectives. Ouch! In the midst of a disaster is not the time to find out that your DRP is riddled with gaps. Failure to test restore and recovery procedures is a recipe for business failure. There are four different test types, and each should be conducted at least annually: tabletop scenarios, walkthroughs, live scenario tests, and full-stop testing.

DRP tests need not be onerous—it is possible to test the DRP without draining resources. Testing is also an excellent training tool for key recovery personnel in that it will familiarize them with the plan and get them to think about how to operate under new, varied, and unanticipated circumstances.

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PRODUCT OF THE WEEK

The Scoop On Search

dtSearch Enables Searches In A Variety Of Environments

by Sue Hildreth

FOR MOST COMPANIES, digital content is stashed in a number of places, from local hard drives to network file servers to databases. Even laptops and USB sticks may carry the only copy of an important company document. And usually those distributed files come in an array of disparate formats, including PDF, text, XML, Word, and many others. Often the email server and individual inboxes serve as storage repositories for key business correspondence.

The Demand For Search Tools

Managing and locating those company files has become a major headache for most IT managers. “The problem with information today is that it’s in so many different places that when somebody needs to find it, they can’t,” explains Colin Bush, an analyst for Ferris Research, which covers email archiving and search. “Just for email alone, there’s the email message store [on the server], the

offline message stores people have on their local machines, and the archives.” That means valuable correspondence and documents may become lost, or data that could provide insight into business trends can’t be analyzed because it’s in too many formats and locations.

At the same time, notes Bush, there are more laws and regulations requiring companies to provide secure and searchable repositories of corporate documents, including email. The Federal Rules for Civil Procedure, for example, require companies to show an e-discovery plan for producing electronic documents during the discovery phase of a trial.

Companies need sophisticated search tools not only to help them locate important files and documents but also to meet government regulations requiring them to be able to quickly produce records and email in an investigation. Ideally, these tools should be able to provide a variety of advanced search functions, tap into multiple types of databases, and handle different data formats—including email, instant messages, text files, PDFs, Web pages, and even voice messages. The growth in demand for versatile search tools has been good news for dtSearch (301/263-0731; www.dtsearch.com), a leading provider of search software to corporate users, as well as software vendors that embed dtSearch in their products. The company recently released the latest version of its product line, version 7.5.

A Variety Of Searches

The dtSearch product line includes the dtSearch Desktop with Spider for searching files on desktop computers; the dtSearch Web with Spider, which can publish data to the Internet or intranet and search content on internal and external HTML sites; the dtSearch Network with Spider; the dtSearch Text Retrieval Engine; the dtSearch Engine for Win and .NET; the dtSearch Engine for Linux; and the dtSearch Publish, which lets customers publish a searchable database to a CD, DVD, or portable hard drive.

The newest version of the products includes native 64-bit support and improved international language support through

Unicode. The company’s Spider function, which is embedded in its other products, supports search for both static content, such as HTML pages and PDFs, as well as dynamic content, such as ASP.NET applications, MS CMS, and SharePoint. The software supports file formats ranging from Adobe Acrobat and EBCDIC (extended binary coded decimal interchange code) to WordStar and XBase.

Key Features

Being able to search a range of document and data sources using one tool and display the results in one interface is an important feature—one that is not widespread in the search market, says Bush. “Whether you’re talking email archiving or the search industry as a whole, there is a great need for vendors to come together so that from a single interface, I can search all of my,” he notes.

To accomplish this cross-enterprise file search, a customer needs dtSearch for Networks plus dtSearch for Desktops and dtSearch for the Web to get a consolidated search of network-based, PC-based, and Web-based content.

Another key feature of dtSearch, according to Elizabeth Thede, the company’s vice president of sales, is its ability to provide relevancy ranking of results, with search words highlighted in each document to speed the work of finding relevant data in large files faster. “It doesn’t do you any good to pull up a 300-page PDF that you know has a hit somewhere in it if you don’t know where that hit is,” she explains.

Search options in dtSearch include “fuzzy” searching to find misspelled versions of words, synonym and concept-based searching, and special forensics options. It can also do searches based on wildcards, the proximity of one word to another, and the stems or roots of words (called stemming). Another new feature is the ability to handle a large index—up to 1TB—and to index documents at multiple remote locations. An index contains the metadata on all searchable files. It may also be the index for a group of related documents pulled up in one search.

Because there is so much electronic content in organizations, some are beginning to hit the limits on their indexes, making a bigger index capacity critical, says Thede. The ability to include distributed documents in the same search index is also key, she says,

as most organizations store their digital content in multiple places. “It’s a major advantage,” she says. “We can search not only a local database but a remote database, so you can do federated searches.” Search is often included as part of vertical-market apps for specific industry needs, which is evidenced by the many application vendors that use dtSearch’s technology. For example, ILook embeds dtSearch in its Investigator computer forensic tools, and York Enterprise Solutions uses dtSearch in its application for searching Web-based résumés. Service providers also use the software to provide various types of search or intelligence services, such as financial news or legal e-discovery searches.

According to Thede, the biggest vertical markets for dtSearch have been information management, technical documentation, forensics, intelligence, security, legal, and government. Most industries and organizations require some type of search, says Bush, because most organizations have too much electronic content floating around. “It’s a concern across many types of organizations, I’d say,” Bush notes. “It comes down to how you want to manage your data and make it accessible to everyone in the organization. Search is the next likely step for that.”

Basic Search Types Used By dtSearch

- Phrase searching finds phrases, such as due process of law.
- Boolean operators such as and/or/not can join words and phrases: due process of law and not (equal protection or civil rights).
- Proximity searching finds a word or phrase within “n” words of another word or phrase: apple pie w/38 peach cobbler.
- Directed Proximity searching finds a word or phrase “n” words before another word or phrase: apple pie pre/38 peach cobbler.
- Phonic searching finds words that sound alike, such as Smythe in a search for Smith.
- Stemming finds variations on endings, such as applies, applied, applying in a search for apply.
- Numeric range searching finds any number between two numbers, such as between 6 and 36.
- Macro capabilities make it easy to include frequently used items in a search request.
- Wildcard support allows ? to hold a single letter place and * to hold multiple letter places: apple* and not appl?sauce.

SOURCE: DTSEARCH



PRODUCT OF THE WEEK

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Issues To Watch For With Blade Servers

Blades Offer Advantages In Size & Convenience But Present Some Hidden Headaches

by Kurt Marko

SINCE THEIR INTRODUCTION more than six years ago, blade servers have evolved from a clever, high-density packaging solution to an integrated platform incorporating server, network, and storage components. The increased capabilities and convenience of the latest blade products have resulted in revenue for the category soaring more than 40% this year, with the total market estimated by IDC to have passed \$1 billion this past quarter. Despite their recent popularity, blades still make up less than 10% of the overall market; however, as IT departments consider spending priorities for the next year, many are likely wondering whether blades should be added to their infrastructure mix. While blades offer a number of advantages over conventional rackmount servers, IT experts don't give them an unqualified recommendation because blades can pose nasty surprises for users who don't do their homework.

Blade Strengths & Challenges

The principle advantage of blade servers, and the feature universally touted by manufacturers, is the increased density and ease with which additional servers can be deployed. Gartner analyst John Enck notes several other benefits, such as simplified hardware maintenance via the ability to quickly swap failed components and reduced cable clutter from an integrated chassis. He also

notes that blade management software enables new servers to be quickly provisioned using simple scripts or a few mouse clicks. Enck says that each product's proprietary design—there isn't a standard backplane interface that allows mixing and matching of blade components from different vendors—is the biggest disadvantage. This inevitably leads to vendor lock-in. He finds that once customers have committed to a blade solution, they must load the entire chassis with a single vendor's products, meaning that a blade usually entails establishing a strategic vendor relationship. Enck notes that limited configuration options that hinder flexibility, while somewhat mitigated with recent designs, is another challenge with blades. The rapid rate of technological change in the blade market is also cause for concern. "The history of blades shows that the technology has undergone a revolution," Enck notes. "This revolution will continue, with vendors investing in new features and technologies, which leads to faster obsolescence than found in the wider server market."

Blade "Gotchas" To Watch For

Blade buyers also need to be cognizant of a number of more subtle issues concerning power, cooling, and interoperability. William Terrill, associate senior research analyst with Info-Tech Research Group, has identified four blade server "gotchas" that may trip up unsuspecting users. The increased density of

blade servers can lead to problems in deployments that don't adequately plan for heat removal. Terrill says that although "the amount of heat generated by blade servers is less than that created by equivalent rack-mount servers, the blade chassis concentrates that energy, creating a higher density of heat within a small physical space. As a result, airflow created by blade server fans has a higher velocity than that from single rack-mount servers." Consequently, installing blades in smaller computer rooms with inadequate ventilation will cause hot spots. Furthermore, he notes that many standard blade configurations may not include enough hot-swappable fans to adequately cool a fully loaded chassis, thus buyers should consider adding optional fans.

Similarly, Terrill finds that inadequate power-supply capacity has plagued some blade configurations. Although current chassis designs have mitigated or eliminated the most catastrophic power issues, he says, "as new, more power-hungry (multisocket, multicore high-performance) processors are introduced, it is possible that the power demand may, once again, outstrip the capacity of the power supplies." Buyers should also investigate whether a fully populated chassis will continue to operate properly in the event of a power supply failure. Terrill notes that most chassis support four supplies and that new designs typically throttle back CPU performance in the event of a supply failure, but he notes that blade users "may not have as much redundancy in the power supply as you think."

Blades are popular as the foundation for virtualization, with a typical scenario using a SAN to consolidate storage for a blade server cluster. Terrill says, "In order to take maximum advantage of both the SAN and virtualization, the individual processor blades should have no onboard hard disk" and instead boot the OS directly from the network. Unfortunately, he has found that while all vendors support booting from Fibre Channel SANs, booting from iSCSI can be problematic. Terrill says blade buyers with iSCSI arrays should carefully study the spec sheets, advising that unless the vendor explicitly states support for iSCSI boot-from-network for a particular OS, it probably won't work. Gartner's Enck concurs but cautions that buyers may still run into interoperability issues when trying to mix blades and SAN arrays from different vendors. He notes that blade vendors typically only certify on their own storage devices, so those building

Four Blade Server "Gotchas"

- According to William Terrill, associate senior research analyst with Info-Tech Research Group, "Blade servers have evolved rapidly in the past 18 months. New product introductions by all of the major vendors, including Dell, HP, IBM, and Sun, have leveled the playing field and resolved many of the problems that were seen with the first-generation products. However, even with this new generation of blade servers, there are some issues that continue to be of concern to the IT staff selecting these products."
- **Fan speed:** Blade servers have higher-velocity ventilation fans that can create hot spots in small computer rooms.
 - **Power supplies:** Some blade configurations may not have adequate power supply capacity for a chassis loaded with high-end processors.
 - **Boot from SAN:** Booting from external iSCSI SAN arrays may not be supported under all operating systems.
 - **Network management:** Intelligent I/O modules (either Ethernet or Fibre Channel) may require different management tools than existing networking components.

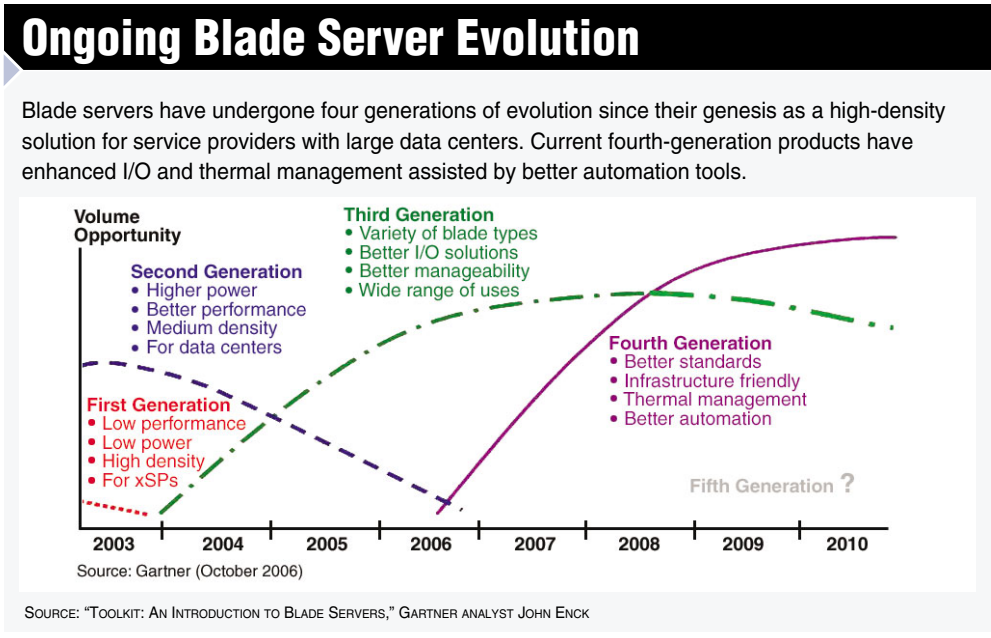
SOURCE: INFO-TECH RESEARCH NOTE BY BILL TERRILL

heterogeneous solutions may run into finger-pointing between vendors if problems arise. Enck sums it up saying that "blade solutions do not always connect well to established SAN and network environments. The ecosystem to ensure cross-vendor support for storage and networking technology at the interconnect and manageability levels is not well-developed."

Another area in which blade servers can introduce unintended complexity to an IT environment is in management of integrated I/O modules, particularly LAN switches. According to Terrill, problems can arise when using Layer 3 switch modules rather than a simple pass-through cross-connect that routes to an external switch. "Configuration and management of the module may require different tools than the rest of the enterprise networking components," he says. Organizations already standardized on Cisco (www.cisco.com) gear may feel compelled to use Cisco modules because they have products for all major chassis. Terrill cautions that this usually involves a price/performance trade-off because Cisco is usually more expensive.

A Note Of Caution

Blade servers offer real benefits in density, deployment convenience, and power consumption, and experts say they are worth considering when deploying eight or more servers. Yet Terrill notes, "There are some areas that continue to be potential issues with blade server installations, all of which can be dealt with" through careful consideration of the potential pitfalls.



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Adaptec RAID Controllers Combine SATA & SAS Benefits

SoftLayer Finds A Single Card Replacement For A Multitude Of Controllers

by Julie Sartain

USER REQUESTS FOR INFORMATION are generally scattered across a span of disks with distinct hot spots that, typically, contain file information structures, file updates, page-swapping areas, and other frequently accessed data. Hot spots can benefit from efficient array caching. Busy file servers handle thousands of requests each second. The RAID controllers you use should be able to handle a larger number of user requests; if not, response times are impaired.

SoftLayer Technologies (www.softlayer.com), headquartered in Plano, Texas, is a consolidator of technology that brings together hardware, software, security, virtualization, bandwidth, and data center services in a bundled month-to-month service. In that bundle is the Adaptec Unified SAS line of RAID cards (408/945-8600; www.adaptec.com).

“We were seeking to consolidate our hardware inventory while increasing flexibility and predictability across all server platforms,” says Lance Crosby, CEO and president at SoftLayer Technologies. “The Adaptec Unified RAID controller is a single card replacement for a multitude of controllers from several other manufacturers.”

Adaptec’s Unified serial controllers provide high-capacity SATA disk drives and/or high-performance SAS drives in a single storage system that can scale up to 128 devices or 60TB (using 500GB drives).

According to Crosby, SoftLayer is a next-generation hosting company that focuses on on-demand IT infrastructure for all enterprises. SoftLayer’s outsourced services are completely automated, which means its customers can replace, augment, or extend their IT strategies via true on-demand services. SoftLayer needed products that would help provide its customers on-the-fly technologies within minutes of purchase.

“Our objective was to find a solution that would allow us to have a solid performing SATA/SAS combination card at a very affordable price. The ability to provide enterprise-grade battery backup RAID

solutions across SATA/SAS combination storage needs gives us the perfect solution for our customers,” says Crosby.

The Solution

SoftLayer engineers reviewed hardware controllers from Adaptec and several other leading manufacturers. “There are, of course, many reasons why we chose Adaptec’s Unified RAID controller,” says Crosby, “but the reason that stands out the most is the fact that this controller allowed us to fulfill all of our different drive/RAID combinations with one manufacturer and one controller.”

For example, if a customer had a set of SATA drives in a RAID 1 configuration and wanted to add additional SAS drives, none of the other cards could achieve this, Crosby says. “Adaptec kept us steadily supplied with the superior product we needed and did so at a price point that the others just could not beat,” adds Crosby.

With the move to the Unified SAS solution, SoftLayer has been able to streamline the setup and maintenance of its RAID solutions. Every manufacturer has its own set of tools to aid in setup and monitoring, “but of those that meet our needs, Adaptec was the one with the best solutions,” Crosby notes.

Product Description

The family of Adaptec Unified Serial RAID controllers for the PCI Express interface includes 4- and 8-port low-profile models, as well as the industry’s only 12- and 16-port designs. These products are ideal for bandwidth-intensive applications, including media servers, email databases, and application servers, plus the performance, scalability, and reliability of the SATA disk drive-based solutions are significantly increased. In addition, the Adaptec Unified Serial controllers are compatible and fully supported by more than 270 third-party systems and devices.

As a large-scale hosting company, the hardware testing and certification process went very quickly. Only having to certify

one card across all server lines running a myriad of enterprise and open-source operating systems greatly reduces administrative and support training costs. Prior to the Adaptec Unified SAS controller adoption, each hardware controller that SoftLayer used had to be certified on each server running a multitude of storage and OS combinations. The ability to have one controller across all servers has saved SoftLayer hundreds (if not thousands) of man-hours in the certification and support processes, adds Crosby.

In addition to the initial advantages, ongoing troubleshooting issues have been greatly reduced, and customer awareness of the product across their installed server platform reduces the amount of support required, Crosby says. Customers continu-

ally comment on the quality of the product and the convenience of being able to use the same card across all their server platforms, which reduces their need to learn new hardware and software.

ally comment on the quality of the product and the convenience of being able to use the same card across all their server platforms, which reduces their need to learn new hardware and software.

Problem Solved

According to Crosby, Adaptec’s Unified SAS RAID controller is a true groundbreaking product for the industry. For the first time in history, end users can couple the low-cost advantages of SATA with the enterprise speed and quality of SAS inside the same server with a single controller. SoftLayer’s business mantra is predicated on end-user convenience, and this product is a great example of SoftLayer’s overall go-to-market strategy.

“We have no regrets,” says Crosby. “On the contrary, Adaptec is arguably the most notable name in the storage market, and these products allow us to promote the use of industry-leading vendors in our sales process. They have been a solid leader for many years, and we know they will be here tomorrow when we need them.”



Adaptec Unified Serial RAID Controllers

Provide high-capacity SATA disk drives and/or high-performance SAS drives in a single storage system that can scale up to 128 devices or 60TB

“Adaptec kept us steadily supplied with the superior product we needed and did so at a price point that the others just could not beat,” says Lance Crosby, CEO and president of SoftLayer Technologies (www.softlayer.com).

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Managing Mergers & Acquisitions

Smaller Businesses Can Prepare To Make Strategic Acquisitions By Looking At IT Resources

by Darrell Dunn

BILLION-DOLLAR MERGERS and acquisitions dominate the headlines, but every year, there are thousands of transactions between SMEs that fly under the radar. And while a company with billions in annual sales may be able to absorb the loss of a bad acquisition, smaller business have less room for error and need to ensure the best outcome, whether they are looking to add new staff and capabilities or preparing for a potential acquisition.

Unfortunately, many SMEs overlook IT as a critical component to consider in preparing to be acquired or in making an acquisition,

which places the transaction in jeopardy for long-term success. And with a growing percentage of SMEs owned by baby boomers looking at retirement, the number of merger and acquisition transactions between SMEs is expected to grow in the next five years.

Set Up For Success

“Historically, IT has been an afterthought,” says Richard Balon, managing director of Mergers & Acquisitions Consortium, a provider of M&A assistance to SMEs for the past two decades. “And it is not that uncommon to find companies that may be doing \$80 million annually in revenues, but their IT department’s still operating like they’re stuck in the ’70s or ’80s.”

In general, small manufacturing companies often have less-mature IT efforts than small or midsized service-oriented businesses that rely more heavily on IT for critical business differentiation, Balon says. But whatever the industry, making sure that the IT infrastructure is up-to-date can have immediate payback during an acquisition. “Every dollar correctly spent on IT can mean a return of \$3 to \$4 on a purchase price,” he says. “No one wants to spend \$15 million only to find they have a million-dollar IT headache.”

Companies wanting to acquire an SME will look first at how the transaction will

affect the ROI and how quickly that return can be realized, says Gene Gottesman, president of Gottesman Company (www.gottesman-company.com), which specializes in aiding midmarket mergers.

Prospective buyers may have to educate the owner of a targeted company on the potential value of a merger or acquisition and help the owner understand how its IT department can impact the eventual return on investment, he says. “Most of these owners are not motivated sellers, and when you ask them, they say the company is not for sale,” Gottesman says. “And most of these guys are not that big on IT unless they are in the IT field. In my experience, they just don’t know about how IT can affect a business and its worth in the market.”

Technology Tools To Aid The Process

Smaller enterprises should begin using selling and buying techniques that have grown popular with larger mergers and acquisitions, such as the implementation of a VDR (virtual data room), says Paul Hartzell, senior vice president at Merrill (www.merrillcorp.com) in charge of VDR DataSite.

The VDR allows a company preparing for an acquisition to post relevant information online that can be securely viewed by potential buyers around the world. Organizing relevant information for use in the VDR also ensures that a company has taken some important steps to ensure it is ready for a potential transaction, Hartzell says.

Taking The Risk Out Of Mergers & Acquisitions

A merger or acquisition can be a “make or break” decision for most SMEs. Companies in the midmarket considering a transaction may not have a lot of experience, but some due diligence and forward-thinking can help ensure the acquisition meets expectations.

Make sure your technology is updated and compatible. Whether preparing to be acquired or looking for an acquisition target, take a close look at the data center operation. Are the systems running on the latest software releases for security and critical applications? Is the hardware compatible? How much is it going to cost to integrate the acquired IT infrastructure?

Take time to consider the opportunities for consolidation. SMEs can take advantage of the potential savings from consolidation and virtualization by understanding acquired and existing IT assets and how consolidation can reduce operational costs, lessen the impact on IT staffs, and cut energy costs.

Check out the impact of IT on your loan. Banking and venture capital organizations are increasingly savvy about the impact of IT on the bottom line, and if you’re looking at acquiring a business that will need a significant technology upgrade, the lender may require a higher percentage rate to complete the deal.

Develop an exit strategy. Even if you think you won’t sell your company or won’t look to sell in the near future, beginning looking at how the company can be positioned best for an acquisition and making small investments in technology can yield large returns when the decision is made to pull the trigger.

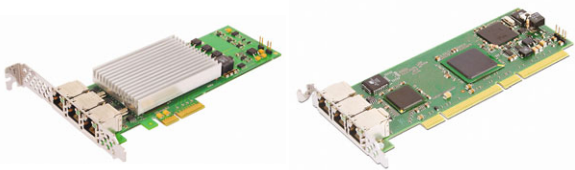
“More competition for a specific company produces a higher sale price,” he says. “And getting your arms around the different parts of your organization as you prepare the virtual database can be a key to ensuring the success of an acquisition, as well as post-merger integration.”

Smaller Mergers & Acquisitions Growing

The number of worldwide deals valued at less than \$100 million has increased dramatically since 2001.

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2002	11,777
2003	13,050
2004	13,725
2005	14,263
2006	15,312

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Entitlement Management As A Security Measure

Rein In Authorizations To Help Keep Your Data Safe

by David Geer
• • •

AS THE NUMBER AND COMPLEXITY of application and system authorizations (entitlements) grow, it gets harder for IT to track and adjust them manually. But, IT has to stay ahead of entitlements so that these comply with precise security policies. Otherwise, an enterprise constituent could gain more privileges than policies intend, which could lead to security breaches.

Entitlement management, or EM, is a subset of identity management that controls what users can do once they get inside the network, according to Bob West, CEO of Echelon One, an information security research firm. EM enables IT to define granular levels of entitlements across multiple roles, systems, and applications, according to Scott Crawford, research director of security and risk management at Enterprise Management Associates, an IT management market analyst firm. SMEs can use EM solutions to automate entitlement management, keep it from overwhelming IT, and keep security holes that might sprout from “over-authorization” in check.

How It Works

According to Chris Loudon, a director with Protiviti, a leading international technology risk consultant, the idea behind EM is to manage entitlements more effectively through centralized services (from a central

person hours. According to West, while an enterprise could scale entitlement management with labor and people, it’s easier and more cost effective to do it with entitlement management software.

EM’s scale and effectiveness are due in large part to its ability to fine-tune enterprise-wide entitlements based on “user attributes, resource attributes, and contextual attributes,” according to Howard Ting, senior director of product management, Securent (www.securent.com), provider of the EMS (Entitlement Management Solution) product.

User attributes include a person’s title, role, and job function, according to Ting. These can be associated with the authorizations a role requires. Through EM, IT can remove authorizations automatically when a person leaves one role to take on another, so an employee doesn’t compile privilege upon privilege, piling up authorizations that could lead to breaches.

Resource attributes are descriptions of documents and resources, according to Ting. These descriptions include things such as document size, date of last access, and document type. EM can define many resource attributes; together, these descriptions become very precise.

Using resource attributes, IT can determine who should have different kinds of authorizations with files or data fitting specific descriptions. For example, IT can use EM to enforce restrictions around who may

“By using rich attributes to set policies, you get very precise decisions about who is entitled to what. That improves security and ensures compliance,” Ting says.

Controlling Your Data & Your Destiny

A few common scenarios illustrate how SMEs can find EM indispensable. SMEs with valuable IP (intellectual property), for example, must ensure against information breaches, according to Ting. Any unnecessary authorizations around that data are an extra opportunity for data theft. The value of the IP is many times the cost of an EM solution, which can easily curtail those authorizations.

In another scenario, third parties introduce entitlements that are particularly hard to keep track of. SMEs frequently work with contractors, for example, to achieve goals they can’t reach as easily or as quickly alone. EM makes it easier to work with multiple contractors whose network and application permissions require a lot of granular control and fine tuning, according to Ting.

If the enterprise has a lot of data it wants to provision to contractors to do the work, authorizations can be set to automatically disappear when the contract is up, according to Ting. “Small businesses lack the IT personnel to handle all this manually. They use a lot of contractors and lose a lot of control over who has access to their data,” Ting says.

Finally, EM becomes important whenever SMEs use SaaS (software as a service). SaaS providers make software applications available as services over the Internet. SMEs using SaaS avoid the headaches of hosting and managing the applications themselves. SaaS is a very attractive way for SMEs to consume applications, according to Ting.

In a SaaS model, it’s very critical that the SME’s data doesn’t mix with competitors’ data, which could be running on the same remote applications, according to Ting. These SaaS environments really need strong access controls, Ting notes, which is exactly what EM provides.

Enabling Authorization Dynamics

The enterprise has to make dynamic decisions about who gets access to what and when and how they get it, according to Ting. Whenever the sensitivity of the data, the number of people needing unique entitlements, and the number of applications

Assessing The Need

Take these steps to assess the need for an entitlement management, or EM, solution.

1. An SME should quantify the time and labor already invested in managing entitlements manually, according to Howard Ting, senior director of product management at Securent, an entitlement management solutions provider.
2. Investigate EM solutions to see whether these would provide a savings over the manual process. Two examples of viable solutions include Securent’s EMS (Entitlement Management Solution) and the Varonis (www.varonis.com) Comprehensive Data Governance suite, which includes the products DatAdvantage and DataPrivilege.
3. Use advisors who are familiar with the variety of EM solutions available, according to Scott Crawford, research director, security and risk management, Enterprise Management Associates, an IT management market analyst.

Getting Started

When an SME is ready to trial an EM (entitlement management) solution, the following tips can guide its steps.

1. To get started, SMEs should prioritize the applications they want to secure with EM and state clearly what the goals are (reducing the cost of security/policy administration, ensuring compliance with PCI/Sarbox), according to Howard Ting, senior director of product management, Securent (www.securent.com).
2. SMEs should ask their vendors to prove that their EM solutions work for the customers’ environment and use cases, maybe by modeling after existing customer deployments, according to Ting.
3. It pays to look for pricing models that accommodate the enterprise’s budget. Securent bases pricing models on the number of servers required to do the job, according to Ting.

and systems starts to grow beyond IT’s visibility and control, entitlement management becomes a solution the SME should consider. ■

EM’s scale and effectiveness are due in large part to its ability to fine-tune enterprise-wide entitlements based on user attributes, resource attributes, and contextual attributes.

location or interface). These services address entitlements across applications and groups simultaneously. That way, IT doesn’t have to reach inside each individual application to change access control lists manually, Loudon explains.

This keeps the task of managing entitlements under control even as it becomes more complex. That helps the enterprise to avoid the costs of added employees and

see and use files that commonly contain financials or other confidential data.

Finally, EM uses contextual attributes. These kinds of attributes surround various contexts, such as the time of day or the location of the person requesting the information. The latter enforces restrictions on people who, for example, don’t need to connect to the network from home, according to Ting.

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WHAT'S HAPPENING

Industrial-Strength Customer Support

OPNET's Application & Network Management

by Timothy L. Warner

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IMAGINE A MULTINATIONAL ENTERPRISE that relies heavily upon Web applications for its business. Visualize, moreover, that performance issues with one of these Web applications begins to affect customer access to information and services.

As many CIOs and network managers understand instinctively and intimately, the process of identifying and resolving performance problems that involve sophisticated, multitier applications can be extremely difficult indeed; the process at times can be akin to searching for the proverbial “needle in a haystack.”

OPNET To The Rescue

OPNET Technologies (www.opnet.com), headquartered in Bethesda, Md., helps organizations identify and resolve performance issues. The publicly held company was incorporated in 1986 and is an industry-leading provider of solutions for managing networks and applications.

OPNET specializes in producing and supporting proprietary software that helps enterprises to address APM (application performance management) issues, network operations, capacity management, and network research and development. Susan Cole, vice president of marketing and business development for OPNET, characterizes end-to-end customer support as the key element that differentiates OPNET from its competition.

“A key competitive differentiator for OPNET is our focus on full application and infrastructure life cycle,” says Cole.

“Optimizing a solution or avoiding a problem before an application, network change, or server consolidation is implemented saves time and money and accelerates successful IT initiatives.”

Cole continues, “We provide superior solutions for troubleshooting problems that affect successful application and service delivery in a production environment, and we leverage the same underlying technology to assess and optimize them prior to deployment or change.”

OPNET Product Portfolio

According to Cole, OPNET offers three software solutions portfolios to enterprises:

Application Performance Management (aka APM). Products include ACE and ACE Live, which provide for end-user experience monitoring, real-time network analytics, and proactive detection of application response time problems for faster diagnosis and resolution.

Capacity Management. Products include IT Guru Network Planner and IT Guru Systems Planner, which enable organizations to accelerate application deployments; avoid risks associated with infrastructure growth, consolidation, and change; optimize network and server capacity; and plan for server virtualization.

Network Operations. Products include IT Sentinel and IT Netcop, which automate network configuration; visualize real-time topology, traffic, and status in a single view; accelerate network troubleshooting; and increase the productivity of network operations staff.

Timeframe for application solution deployment is a principle purchasing consideration for most network managers. To this end, Cole is optimistic regarding OPNET’s

offerings. “Our end-user decision support software, such as ACE, does not require any assistance with setup,” she says. “Users can have the software up and running in a few hours—often much less. The same is true for ACE Live.”

A Focus On Training

APM, capacity management, and network operations software represent just one way in which OPNET helps its customers improve their productivity. According to Cole, “OPNET also provides world-class consulting services, leveraging our domain expertise and extensive intellectual property to deliver custom software solutions, as well as product customization, integration, and implementation.”

“We provide free, live, lab-based training at OPNET facilities around the world to customers who purchase product maintenance,” says Cole. By her definition, “product maintenance” encompasses 24x7 email and telephone technical support, bug fixes, and product updates. “OPNET also delivers customized and onsite instructor-led training for a fee,” adds Cole.

Cole notes that OPNET offers nearly 100 Webinars every year, many of which provide instruction in workflow creation and management. “Our technical support team provides usage as well as more typical defect support—we are happy to help a customer hone their skills or learn how to take advantage of features that are new to them,” Cole says.

OPNET’s focus on training culminates in both regularly scheduled regional user meetings and an annual technology conference named OPNETWORK. “At OPNETWORK, we offer extensive hands-on training. In August, more than 2,000 participants attended more than 700 hours of tutorials, panel sessions, and labs,” says Cole.

Diversity Of Clientele

OPNET’s proximity to Washington, D.C., and its diverse product suite lend the company to a wide variety in its client base. “We are pleased to cite many small to medium-sized enterprises [SMEs] among our users,”

says Cole. “We have a broad customer base, including corporate and government enterprises, defense agencies and contractors, network service providers, and network equipment manufacturers.”

Nevertheless, regardless of where its clients are located geographically, OPNET’s technical support team provides targeted assistance to meet their customers’ application and network management needs.

“We recently launched an exciting new service called STAR 24 (Special Team for Application Responsiveness) that provides rapid response troubleshooting of application performance problems,” Cole explains. “For a fixed fee, OPNET will dispatch expert consultants to a customer site within 24 hours of receiving the service order. If OPNET is unable to successfully identify the root cause of the problem, then the full service fee is waived.”

Another common question from potential OPNET clients concerns the software’s operating system flexibility and minimum system requirements. To this end, Cole states, “Our solutions are supported on both Microsoft Windows and Linux, and most are also supported running in popular virtualized server environments.”

“A typical desktop or laptop configuration supports our server- and appliance-based solutions effectively. For example, a computer or appliance with a 2GHz processor, 1 to 2GB RAM, and a 30 to 40GB hard drive is acceptable,” says Cole.

Cole also describes OPNET’s software licensing model. “Our end-user decision support tools, such as ACE and IT Guru Systems Planner, are licensed per seat; that is, a single license can be shared among multiple users but not concurrently. Server- and appliance-based solutions are licensed per instance, such as IT Sentinel and ACE Live.”

Customer-Driven Focus

“Every company says they are customer-focused, and most really believe they are,” Cole says. “I myself have never seen an organization that is as customer-driven as is OPNET. The feedback we continually receive from our clients bears this out.” ■



THREE QUESTIONS

Data Connectivity For The SME

Five-Year Warranties, Solid Engineering & Customer Focus Make Western Telematic Unique

by Will Kelly

SECURING DATA CENTER INFRASTRUCTURE and uptime is a challenge for many SMEs, and having a rock-solid infrastructure and finding a reliable vendor and partner who can work with you to design the right solution can be just as difficult.

Western Telematic (www.wti.com) is a privately held designer and manufacturer of remote console and power management solutions for computer data centers with more than 30 years in the business.

■ What are the biggest IT-related issues facing today's small to midsized enterprise?

Thermal management, power management, equipment uptime, and power consumption are some of the biggest IT-related issues facing today's SMEs, according to Tim Peterson, spokesperson for Western Telematic. Data center managers are also facing power problems, temperature issues, security breaches, and energy consumption issues.

■ What should *Processor* readers know about your company's products?

Western Telematic products carry a five-year warranty, according to Peterson, who advises that although his company's products may cost a bit more than its competitors, the extra three years of warranty life is a real difference. This is an important differentiator for Western Telematic products and support.

He also points out that Western Telematic products are designed, manufactured, and built at company facilities in Irvine, Calif., not offshore. The company's engineers take the time to build products with top-notch components, including better power supplies and circuit boards. In testimony to the quality of Western Telematic design and engineering, he points to the fact that the company has had no power-supply failures in seven years.

■ What makes your company unique?

Peterson points to the fact that Western Telematic was the first company on the power side to implement power monitoring and reporting plus temperature monitoring and reporting in the rack. The company's extensive monitoring works through MIBs (management information bases).

Western Telematic fields a strong in-house engineering staff and sales engineers who are knowledgeable

about both technology and the market. Peterson says that the company works well with customers to lead them down the right path and drill down to get a handle on customer requirements. The company takes an onsite approach and gets out and talks to current prospective customers to educate and evangelize about Western Telematic product offerings.

The company is also very proactive with its customers, including onsite demos on or off its prospective network with sales engineers available to answer questions. “We want the end customer to get a good feel for our products,” notes Peterson, who also points to the success of the company's consultative approach for demos and says that customers love it.

Western Telematic's engineering and design expertise is also available for custom projects. Peterson states, “We have great products, but sometimes we have customers say, ‘But we need it to do X,’ and our engineers work with them to implement the technology or customizations.”

“Our products are ready to ship the same day if you order before 12 p.m. PST and are always in stock. Worst case is next-day shipping if you order after that time,” states Peterson. This quick turnaround time can come in handy when a data center emergency arises.

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